



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 160358

**TO: Jeffrey Parkin**  
**Location: REM/3D39/3C18**  
**Art Unit: 1648**  
**Wednesday, July 27, 2005**

**Case Serial Number: 10/031975**

**From: Paul Schulwitz**  
**Location: Biotech-Chem Library**  
**REM-1A65**  
**Phone: 571-272-2527**

**Paul.schulwitz@uspto.gov**

### Search Notes

Examiner Parkin,

Please review the attached search results.

If you have any questions or if you would like to refine the search query, please feel free to contact me at any time.

Thank you for using STIC search services!

Paul Schulwitz  
Technical Information Specialist  
REM-1A65  
571-272-2527



**This Page Blank (uspto)**

From: Parkin, Jeffrey  
Sent: Monday, July 25, 2005 3:09 PM  
To: STIC-Biotech/ChemLib  
Subject: Sequence Search for U.S. Serial No. 10/031,975

Would you please search **SEQ ID NOS.: 1, 20, 24, and 33** from **U.S. 10/031,975** v. all relevant databases.

- More specifically, can you limit the sequence search to **amino acids 176-221** of these sequences? The claims are actually directed toward variants of this fragment which are contained within the aforementioned sequences (~250 aa).

Place results on both paper and electronic format (i.e., e-mail, disk, etc.).

Thanks!

JSP  
AU 1648  
REM 3D39  
2-0908

\*\*\*\*\*

STAFF USE ONLY

Searcher: \_\_\_\_\_  
Searcher Phone: 2-\_\_\_\_\_  
Date Searcher Picked up: \_\_\_\_\_  
Date Completed: \_\_\_\_\_  
Searcher Prep/Rev. Time: \_\_\_\_\_  
Online Time: \_\_\_\_\_

\*\*\*\*\*

Type of Search

NA#: \_\_\_\_\_ AA#: \_\_\_\_\_  
Interference: \_\_\_\_\_ SPDI: \_\_\_\_\_  
S/L: \_\_\_\_\_ Oligomer: \_\_\_\_\_  
Encode/Transl: \_\_\_\_\_  
Structure#: \_\_\_\_\_ Text: \_\_\_\_\_  
Inventor: \_\_\_\_\_ Litigation: \_\_\_\_\_

\*\*\*\*\*

Vendors and cost where applicable

STN: \_\_\_\_\_  
DIALOG: \_\_\_\_\_  
QUESTEL/ORBIT: \_\_\_\_\_  
LEXIS/NEXIS: \_\_\_\_\_  
SEQUENCE SYSTEM: \_\_\_\_\_  
WWW/Internet: \_\_\_\_\_  
Other(Specify): \_\_\_\_\_

**This Page Blank (uspto)**



GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 26, 2005, 11:38:22 ; Search time 91.5 Seconds  
(without alignments)  
194.437 Million cell updates/sec

Title: US-10-031-975-1\_COPY\_176\_221

Perfect score: 244

Sequence: 1 SNQNNFVHDCVNITIKQHTV.....ENFTETDKMWRVEQMCI 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 396760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A Geneseq\_16Dec04:\*

- 1: Geneseqp1980s:\*
- 2: Geneseqp1990s:\*
- 3: Geneseqp2000s:\*
- 4: Geneseqp2001s:\*
- 5: Geneseqp2002s:\*
- 6: Geneseqp2003as:\*
- 7: Geneseqp2003bs:\*
- 8: Geneseqp2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	244	100.0	117	5	ABG94357
2	244	100.0	117	5	ABG80669
3	244	100.0	117	7	ADD24196
4	244	100.0	142	2	AAW17686
5	244	100.0	163	7	ADB63859
6	244	100.0	170	8	ABM85104
7	244	100.0	200	5	ABG31907
8	244	100.0	208	3	ABG07318
9	244	100.0	208	3	ABG07329
10	244	100.0	208	5	ABG31902
11	244	100.0	245	4	AAW72342
12	244	100.0	245	4	AAW72352
13	244	100.0	253	2	AAW86715
14	244	100.0	253	2	AAW69660
15	244	100.0	253	2	AAW85901
16	244	100.0	253	2	AAW07994
17	244	100.0	253	3	AAW81485
18	244	100.0	253	3	AAW06272
19	244	100.0	253	3	AAW15035
20	244	100.0	253	4	AAW72347
21	244	100.0	253	4	AAW72353
22	244	100.0	253	4	AAW72344
23	244	100.0	253	4	AAW72351
24	244	100.0	253	4	AAW72348
25	244	100.0	253	4	AAW72346

## ALIGNMENTS

## RESULT 1

ABG94357  
ID ABG94357 standard; protein; 117 AA.

XX AC ABG94357;

DT 10-DEC-2002 (first entry)

DE Modified human prion protein fragment.

XX

KW Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;

KW cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;

KW vaccine; infectious disease.

OS Homo sapiens.

XX WO200256905-A2.

XX 25-JUL-2002.

XX 21-JAN-2002; 2002WO-IB000166.

XX 19-JAN-2001; 2001US-0262379P.

XX 04-MAY-2001; 2001US-0288549P.

XX 05-OCT-2001; 2001US-0326998P.

XX 07-NOV-2001; 2001US-0331045P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;

XX Plosssek C;

XX WPI; 2002-627351/67.

XX Molecular antigen array used in the production of vaccines for infectious diseases.

XX Disclosure; Page 441; 441pp; English.

XX This invention relates to a novel ordered and repetitive antigen array used in the production of vaccines for infectious diseases. The invention also discloses a composition comprising a non-natural molecular scaffold comprising a core particle selected from a core particle of a non-natural origin and a core particle of natural origin and an organiser comprising at least one first attachment site, where the organiser is connected to the core particle by at least one covalent bond. Also disclosed is an antigen or antigenic determinant with at least one second attachment site, where the antigen or antigenic-determinant is amyloid beta peptide

CC (Abeta1-42) or its fragment and where the second attachment site is  
 CC selected from an attachment site not naturally occurring with the antigen  
 CC or antigenic determinant and an attachment site naturally occurring with  
 CC the antigen or antigenic determinant, where the second attachment site is  
 CC capable of association through at least one non-peptide bond to the first  
 CC attachment site and where the antigen or antigenic determinant and the  
 CC scaffold interact through the association to form an ordered and  
 CC repetitive antigen array. The invention also comprises a coat protein  
 CC capable of forming a capsid which comprises mutant beta coat proteins  
 CC having an amino acid sequence selected from five amino acid sequences  
 CC fully defined in the specification. The compounds of the invention may  
 CC have antimicrobial, antiallergic, immunomodulatory, cytostatic,  
 CC antiviral, antidiabetic, or hypoglycaemic activities and may be used in  
 CC immunisation and as a vaccine. The present sequence represents a protein  
 CC sequence used to create the compositions of the invention  
 XX  
 SQ Sequence 117 AA;

Query Match 100.0%; Score 244; DB 5; Length 117;  
 Best Local Similarity 100.0%; Pred. No. 5.6e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 SNQNNFVHDCVNITIKQHTVTTTKGFNTETDVKMERVVEQNCI 46  
 |||||  
 DB 49 SNQNNFVHDCVNITIKQHTVTTTKGFNTETDVKMERVVEQNCI 94

RESULT 2  
 ABG80669  
 ID ABG80669 standard; protein; 117 AA.  
 XX  
 AC ABG80669;  
 XX  
 DT 29-NOV-2002 (first entry)  
 XX  
 DE Human prion protein/cysteine-containing peptide fusion protein.  
 XX  
 KW Molecular antigen array; vaccine; antigen; antimicrobial; mutant;  
 KW molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutein;  
 KW graft versus host disease; IGE-mediated allergic reaction; anaphylaxis;  
 KW adult respiratory distress syndrome; ARDS; Crohn's disease;  
 KW allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;  
 KW Grave's disease; systemic lupus erythematosus; osteoporosis;  
 KW inflammatory immune disease; myasthenia gravis; multiple sclerosis;  
 KW immunoproliferative disease lymphadenopathy; Alzheimer's disease;  
 KW angioimmunoproliferative lymphadenopathy; immunoblastic lymphadenopathy;  
 KW rheumatoid arthritis; diabetes; infectious disease; factor Xa;  
 KW enterokinase; cysteine-containing linker.

XX Homo sapiens.  
 OS Synthetic.  
 XX  
 XX WO200256907-A2.  
 XX  
 XX 25-JUL-2002.  
 XX  
 XX 21-JAN-2002; 2002WO-IB000168.  
 XX  
 XX 19-JAN-2001; 2001US-0262379P.  
 XX 04-MAY-2001; 2001US-0288549P.  
 XX 05-OCT-2001; 2001US-0326988P.  
 XX 07-NOV-2001; 2001US-0331045P.  
 XX  
 XX (CYTO-) CYTOS BIOTECHNOLOGY AG.  
 XX (NOVS) NOVARTIS PHARMA AG.  
 XX (MAUR) MAURER P.  
 XX (LECH) LECHNER P.  
 XX (ORTM) ORTMANN R.  
 XX (LUEO) LUEOEND R.  
 XX (STAU) STAUFENBIEL M.  
 XX (FREY) FREY P.  
 XX  
 PI Maurer P, Lechner P, Ortmann R, Lueoend R, Staufenbiel M, Frey P;

PI Renner WA, Bachmann M, Tissot A, Sebbel P, Piossek C;  
 XX WPI; 2002-636514/68.  
 DR  
 XX  
 PT Molecular antigen array used in the production of vaccines for infectious  
 PT diseases.  
 XX  
 XX Disclosure; Page 418; 418pp; English.  
 PS  
 XX  
 CC The invention relates to a composition comprising: (a) a non-natural  
 CC molecular scaffold comprising: (i) a core particle selected from: (1) a  
 CC core particle of a non-natural origin; and (2) a core particle of natural  
 CC origin; and (ii) an organiser comprising at least one first attachment  
 CC site, where the organiser is connected to the core particle by at least  
 CC one covalent bond; (b) an antigen or antigenic determinant with at least  
 CC one second attachment site, where the antigen or antigenic determinant is  
 CC amyloid beta peptide (Abeta 1-42) or its fragment, and where the second  
 CC attachment site is selected from: (i) an attachment site not naturally  
 CC occurring with the antigen or antigenic determinant; and (ii) an  
 CC attachment site naturally occurring with the antigen or antigenic  
 CC determinant, where the second attachment site is capable of association  
 CC through at least one non-peptide bond to the first attachment site; and  
 CC where the antigen or antigenic determinant and the scaffold interact  
 CC through the association to form an ordered and repetitive antigen array.  
 CC Also included is a process for producing a non-naturally occurring  
 CC ordered and repetitive antigen array. The composition is used in  
 CC immunisation and as a vaccine for diseases such as influenza, graft  
 CC versus host disease, IGE-mediated allergic reactions, anaphylaxis, adult  
 CC respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,  
 CC acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease,  
 CC systemic lupus erythematosus, inflammatory immune diseases, myasthenia  
 CC gravis, immunoproliferative disease lymphadenopathy,  
 CC angioimmunoproliferative lymphadenopathy, immunoblastic lymphadenopathy,  
 CC rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease,  
 CC osteoporosis and infectious diseases. The present sequence is a modified  
 CC antigen for use in the array of the invention. The antigen is modified to  
 CC possess a cleavage site (enterokinase or factor Xa) and a Cysteine-  
 CC containing N- or C-terminal linker peptide which serves as the attachment  
 CC point to a virus like particle or bacterial protein (the scaffold  
 CC protein)  
 XX  
 SQ Sequence 117 AA;  
 Query Match 100.0%; Score 244; DB 5; Length 117;  
 Best Local Similarity 100.0%; Pred. No. 5.6e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 SNQNNFVHDCVNITIKQHTVTTTKGFNTETDVKMERVVEQNCI 46  
 |||||  
 DB 49 SNQNNFVHDCVNITIKQHTVTTTKGFNTETDVKMERVVEQNCI 94

RESULT 3  
 ADD24196  
 ID ADD24196 standard; protein; 117 AA.  
 XX  
 AC ADD24196;  
 XX  
 DT 15-JAN-2004 (first entry)  
 XX  
 DE Modified human prion protein amino acid sequence.  
 XX  
 KW vaccine composition; virus-like particle; core particle;  
 KW first attachment site; antigen; antigenic determinant; prion protein;  
 KW PrP; PrP peptide; vaccine; neuroprotective; antiinflammatory;  
 KW prion disease; Bovine Spongiform Encephalopathy; BSE;  
 KW Creutzfeldt-Jacob Disease; prion; mutant; mutein.  
 XX  
 OS Synthetic.  
 OS prion.  
 XX  
 XX WO2003059386-A2.

PD XX 24-JUL-2003.  
 PF XX 17-JAN-2003; 2003WO-EP000460.  
 XX XX  
 PR XX 18-JAN-2002; 2002US-00050902.  
 PR XX 21-JAN-2002; 2002WO-IB000166.  
 PR XX 08-JUL-2002; 2002US-0393725P.  
 PR XX 18-JUL-2002; 2002US-0396590P.  
 XX XX  
 PA (CYTO-) CVTOS BIOTECHNOLOGY AG.  
 XX XX  
 PI Bachmann M, Maurer P, Pelliccioli E, Renner WA;  
 XX WPI; 2003-598483/56.  
 DR XX  
 XX A vaccine composition for preventing or treating prion diseases (e.g. Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-phage) and at least one prion protein or peptide bound to the virus-like particle.  
 PT XX  
 PT Disclosure; SEQ ID NO 89; 246pp; English.  
 XX XX  
 PS This invention relates to a novel vaccine composition comprising a virus-like or a core particle with at least one first attachment site and at least one antigen or antigenic determinant that is a prion protein (PrP) or its dimer, or a PrP peptide, the antigen or antigenic determinant being bound to the virus-like or core particle. The vaccine of the invention may have neuroprotective or antiinflammatory activity. The composition is useful as a medicament or in manufacturing a medicament for the treatment or prevention of prion diseases. The prion diseases may include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob Disease. The present sequence is the amino acid sequence of a modified human prion protein (PrP) which may be used during the creation of the vaccine composition of the invention.  
 CC XX  
 XX Sequence 117 AA;  
 SQ  
 Query Match 100.0%; Score 244; DB 7; Length 117;  
 Best Local Similarity 100.0%; Pred. No. 5.6e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 SNQNFVHDCVNITIKQHTVTTTGGENFTETDVKMERVVEQWCI 46  
 Db 49 SNQNFVHDCVNITIKQHTVTTTGGENFTETDVKMERVVEQWCI 94  
 RESULT 4  
 AAW17686  
 ID AAW17686 standard; peptide; 142 AA.  
 XX AC AAW17686;  
 XX XX  
 DT 14-JAN-1998 (first entry)  
 DE Prion protein peptide Hu 90-231.  
 XX Prion protein; PrP; alpha helical domain; screening; inhibition; binding;  
 KW scrapie; bovine spongiform encephalopathy; BSE; CJD; fatal familial insomnia;  
 KW Creutzfeldt-Jakob disease; kuru; GSS; PFI; fatal familial insomnia;  
 KW Gerstmann-Straussler-Scheinker disease; hamster; human.  
 XX OS Homo sapiens.  
 XX XX  
 PN WO9716728-A1.  
 XX  
 PD 09-MAY-1997.  
 XX  
 PF 28-OCT-1996; 96WO-US017462.  
 XX  
 PR 02-NOV-1995; 95US-00556823.  
 XX  
 PA (REGC) UNIV CALIFORNIA.  
 XX  
 PI Prusiner SB, Kaneko K, Cohen FE;  
 DR WPI; 1997-272248/24.  
 XX Prion proteins (PrPs) having at least one alpha-helical domain - used in assays for screening compounds able to inhibit or decrease the binding of PrP peptide(s) to cellular prion proteins or peptide(s).  
 PT  
 PT Claim 11; Page 7-38; 50pp; English.  
 PS  
 XX The present sequence represents a prion protein (PrP) peptide. PrP has an ability to induce a conformational change in cellular prion protein (PrP-c). Methods, for screening compounds which inhibit the binding of PrP-c to a PrP peptide, are used for screening for drugs that may be useful in the treatment prion-related disease e.g. scrapie, BSE (bovine spongiform encephalopathy), CJD (Creutzfeldt-Jakob disease), kuru, GSS (Gerstmann-Straussler-Scheinker disease) and PFI (fatal familial insomnia)  
 CC  
 XX Sequence 142 AA;  
 SQ  
 Query Match 100.0%; Score 244; DB 2; Length 142;  
 Best Local Similarity 100.0%; Pred. No. 7e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 SNQNFVHDCVNITIKQHTVTTTGGENFTETDVKMERVVEQWCI 46  
 Db 81 SNQNFVHDCVNITIKQHTVTTTGGENFTETDVKMERVVEQWCI 126  
 RESULT 5  
 ADB63859  
 ID ADB63859 standard; protein; 163 AA.  
 XX AC ADB63859;  
 XX DT 04-DEC-2003 (first entry)  
 XX Human protein encoded by clone ASTR020055570.  
 DE  
 XX Human; pharmaceutical; diagnostic; gene therapy; tissue regeneration;  
 KW cell regeneration; membrane protein; signal transduction-related protein;  
 KW transcription-related protein; osteoporosis; neurological disease;  
 KW cancer; tumour.  
 XX OS Homo sapiens.  
 XX PN EP1308459-A2.  
 XX PD 07-MAY-2003.  
 XX 28-MAR-2002; 2002EP-00007401.  
 XX 05-NOV-2001; 2001JP-00379298.  
 PR 25-JAN-2002; 2002US-00350978.  
 XX (HELI-) HELIX RES INST.  
 PA (REAS-) RES ASSOC BIOTECHNOLOGY.  
 XX Isegai T, Sugiyama T, Otsuki T, Wakamatsu A, Sato H, Ishii S;  
 PI Yamamoto J, Isono Y, Hio Y, Otsuka K, Nagai K, Irie R, Tamechika I;  
 PI Seki N, Yoshikawa T, Otsuka M, Nagahari K, Masuho Y;  
 XX WPI; 2003-450961/43.  
 DR N-PSDB; ADB61889.  
 XX New polynucleotides and polypeptides, useful for developing a diagnostic marker or medicines for regulation of their expression and activity, or as targets of gene therapy.  
 PT  
 XX Claim 1; Page; 222pp; English.  
 XX The invention discloses a polynucleotide comprising a sequence selected from 1970 fully defined nucleotide sequences which encode novel

CC polypeptides. Also claimed is a polypeptide encoded by the polynucleotide  
 CC or its partial peptide, an antibody binding to the polypeptide or peptide  
 CC of the polynucleotide, immunologically assaying the polypeptide or  
 CC peptide of the polynucleotide by contacting the polypeptide or peptide  
 CC with the antibody of the encoded protein, and observing the binding  
 CC between the two, a transformant carrying the polynucleotide in an  
 CC expressible manner and an antisense polynucleotide. The oligonucleotide  
 CC is useful as a primer for synthesizing the polynucleotide, or as a probe  
 CC for detecting the polynucleotide. The polynucleotides and encoded  
 CC proteins are useful as pharmaceutical agents and many disease-related  
 CC genes may be included in them, for developing a diagnostic marker or  
 CC medicines for regulation of their expression and activity, or as targets  
 CC of gene therapy. The genes are involved in tissue and/or cell  
 CC regeneration. Membrane proteins, signal transduction-related proteins,  
 CC transcription-related proteins, disease-related proteins and genes  
 CC encoding them can be used as indicators for diseases (e.g. osteoporosis,  
 CC neurological diseases, cancer, tumours. The cDNA may be used to regulate  
 CC the activity or expression of the encoded protein to treat diseases. The  
 CC sequence presented is a protein of the invention. Note: Some of the  
 CC sequence data for this patent is not represented in the printed  
 CC specification, but is based on sequence information supplied by the  
 CC European Patent Office.  
 XX  
 XX SQ Sequence 163 AA;

Query Match 100.0%; Score 244; DB 7; Length 163;  
 Best Local Similarity 100.0%; Pred. No. 8.2e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 SNQNNFVHDCVNITIKQHTVTTTGGENFTETDVKKMERVVEQMCI 46  
 |||||  
 DB 80 SNQNNFVHDCVNITIKQHTVTTTGGENFTETDVKKMERVVEQMCI 125

RESULT 6  
 ABM85104  
 ID ABM85104 standard; protein; 170 AA.  
 XX  
 AC ABM85104;  
 XX  
 DT 18-NOV-2004 (first entry)  
 XX  
 DE Human diagnostic and therapeutic pprotein SEQ ID NO:5353.  
 XX  
 KW gene therapy; human diagnostic and therapeutic polynucleotide; dithp.  
 XX  
 OS Homo sapiens.  
 XX  
 PN WO2004023973-A2.  
 XX  
 PD 25-MAR-2004.  
 XX  
 PF 12-SEP-2003; 2003WO-US028227.  
 XX  
 PR 12-SEP-2002; 2002US-0410259P.  
 PR 12-SEP-2002; 2002US-0410260P.  
 XX  
 PA (INCY- ) INCYTE CORP.  
 XX  
 PI Schmidt JP, Wright RJ, Bruns CM, Marjanovic MM, Shen F;  
 PI Harthehorne TA, Suchorski MT, Altus CM, Pitts SJ, Elder LV;  
 PI Mooney EM, Deleage AM, Panesar IS, Banville SC, Reddy TP;  
 PI Stevens KA, Blanchard JL, Panzer SR, Wang X, Au AP, Gerstein EH;  
 PI Peralta CH, Anderson SB, Rioux P, Shen BJ, Wu MC, Stuve LV;  
 PI Lagace RE, Spiro PA, Stewart EA, Wingrove J, Vitt UA, Kirton ES;  
 PI Xu Y, Kwong M, Policky JL, Hurwitz BL, Ma Y, Jackson JL, Gietzen D;  
 PI Patuty S, Shi X, Suarez CJ;  
 XX  
 DR WPI; 2004-329368/30.  
 DR N-PSDB; ACN43756.  
 XX  
 PT New diagnostic and therapeutic polynucleotides and polypeptides, useful  
 PT in diagnosing a condition, disease or disorder associated with human

PT molecules, e.g. autoimmune or inflammatory disorders, in gene therapy or  
 PT in gene mapping.  
 XX  
 PS Claim 27; Page; 190pp; English.  
 XX  
 CC The invention relates to novel diagnostic and therapeutic polynucleotides  
 CC selected from one of the 2722 sequences defined in the specification. A  
 CC polynucleotide of the invention may have a use in gene therapy. The human  
 CC diagnostic and therapeutic polynucleotides (dithp) or polypeptides may be  
 CC used to diagnose a particular condition, disease or disorder associated  
 CC with human molecules, e.g. cell proliferative disorders,  
 CC autoimmune/inflammatory disorders, developmental disorders, endocrine  
 CC disorder, neurological disorders, gastrointestinal disorders, or  
 CC infections caused by virus, bacteria, fungi or parasite. The dithp  
 CC molecules may also be used in genetic mapping, in identifying individuals  
 CC from minute biological samples, in detecting single nucleotide  
 CC polymorphisms, as molecular weight markers, and for somatic or germline  
 CC gene therapy. The present sequence represents a dithp protein of the  
 CC invention. Note: The sequence data for this patent is not represented in  
 CC the printed specification, but was obtained in electronic format directly  
 CC from WIPO at [www.wipo.int/pct/en/sequences/listing.htm](http://www.wipo.int/pct/en/sequences/listing.htm)  
 XX  
 XX SQ Sequence 170 AA;

Query Match 100.0%; Score 244; DB 8; Length 170;  
 Best Local Similarity 100.0%; Pred. No. 8.7e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 SNQNNFVHDCVNITIKQHTVTTTGGENFTETDVKKMERVVEQMCI 46  
 |||||  
 DB 87 SNQNNFVHDCVNITIKQHTVTTTGGENFTETDVKKMERVVEQMCI 132

RESULT 7  
 ABG31907  
 ID ABG31907 standard; protein; 200 AA.  
 XX  
 AC ABG31907;  
 XX  
 DT 05-NOV-2002 (first entry)  
 XX  
 DE Human prion protein related peptide #6.  
 XX  
 KW Prion; human; follicular dendritic cells; FDC; infection;  
 KW blood preparation; food; cosmetic; CJD; Creutzfeldt-Jacob disease.  
 XX  
 OS Homo sapiens.  
 XX  
 PN WO200261418-A1.  
 XX  
 PD 08-AUG-2002.  
 XX  
 PF 31-JAN-2002; 2002WO-JF000803.  
 XX  
 PR 31-JAN-2001; 2001JP-00024279.  
 XX  
 PA (TOHO ) UNIV TOHOKU.  
 XX  
 PI Kitamoto T, Miyoshi K, Mohri S;  
 XX  
 DR WPI; 2002-619277/66.  
 XX  
 PT Screening (non-)human prion disease infection factor based on abnormal  
 PT prion protein sedimentation in non-human follicular dendritic cells as  
 PT indication, applicable in safety test on e.g. drugs and cosmetics.  
 XX  
 PS Example 2; Page 63-64; 69pp; Japanese.  
 XX  
 CC This invention relates to a novel method for screening human or non-  
 CC human prion disease infection factor in a sample by using abnormal prion  
 CC protein sedimentation in non-human follicular dendritic cells (FDC) as  
 CC indication. The method of the invention is useful for screening (non-)  
 CC human prion disease infection factor, which is applicable in safety tests

CC on drugs like blood preparations, foods and cosmetics, and for developing  
 CC drugs for e.g. CJD, as well as for early diagnosis of Creutzfeldt-Jacob  
 CC disease (CJD). The method of the invention is simple and quick. The  
 CC present sequence represents a human prion related protein of the  
 CC invention

SQ Sequence 200 AA;  
 Query Match 100.0%; Score 244; DB 5; Length 200;  
 Best Local Similarity 100.0%; Pred. No. 1e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVQKMERVVEQMC 46  
 Db 140 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVQKMERVVEQMC 185

RESULT 8  
 AAB07318  
 ID AAB07318 standard; protein; 208 AA.  
 AC AAB07318;  
 XX 17-OCT-2000 (first entry)  
 DT Human prion protein sequence.  
 DE Human; prion protein; transmissible spongiform encephalopathy;  
 KW bovine spongiform encephalopathy; BSE diagnosis; TSE; PrP.  
 XX Homo sapiens.  
 OS  
 XX Key Location/Qualifiers  
 FH 29..69  
 FT /note= "Repeat region consisting of tandem repeats of  
 FT repeat unit: PHGGGWGQ (AAB07319)"  
 FT Disulfide-bond 157..192  
 FT Modified-site 208  
 FT /note= "C-terminal phospho-inositol glycolipid membrane  
 FT anchor (-GPI)"  
 FT  
 FN WO200029850-A1.  
 XX 25-MAY-2000.  
 PD 27-OCT-1999; 99WO-FI000897.  
 PE 17-NOV-1998; 98FI-00002481.  
 PR (WALL-) WALLAC OY.  
 PA (BBSR-) BBSRC OFFICE.  
 XX Hope J, Barnard GJR, Birkett CR;  
 XX WPI; 2000-387880/33.  
 DR Novel immunoassay for prion protein, used for the determination of  
 XX transmissible spongiform encephalopathies in bovines.  
 XX Disclosure; Page 43-44; 50pp; English.  
 XX The present sequence is the human prion protein (PrP) sequence.  
 CC Conversion of the normal cellular form of PrP into an aggregated,  
 CC insoluble isoform is implicated in the pathogenesis of Transmissible  
 CC Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine  
 CC Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jacob disease (CJD)  
 CC and Gerstmann-Strausler-Sheinker syndrome (GSS). The concentration of  
 CC this protein in body fluid or tissue samples may be measured by an assay  
 CC of the present invention, in which a PrP epitope is captured by an  
 CC antibody, which is then detected. The presence of PrP indicates TSE. PrP  
 CC epitopes (AAB07320-B07326) are derived from the protease resistant core  
 CC of PrP that is occluded when the PrP is in an aggregated state

SQ Sequence 208 AA;  
 Query Match 100.0%; Score 244; DB 3; Length 208;  
 Best Local Similarity 100.0%; Pred. No. 1.1e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVQKMERVVEQMC 46  
 Db 148 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVQKMERVVEQMC 193  
 RESULT 9  
 AAB07329  
 ID AAB07329 standard; protein; 208 AA.  
 XX AAB07329;  
 AC 17-OCT-2000 (first entry)  
 DT Human prion protein sequence.  
 DE Human; prion protein; transmissible spongiform encephalopathy;  
 KW bovine spongiform encephalopathy; TSE diagnosis; PrP.  
 XX Homo sapiens.  
 OS  
 XX Key Location/Qualifiers  
 FH 29..69  
 FT /note= "Repeat region consisting of tandem repeats of  
 FT repeat unit: PHGGGWGQ (AAB07319)"  
 FT Disulfide-bond 157..192  
 FT Modified-site 208  
 FT /note= "C-terminal phospho-inositol glycolipid membrane  
 FT anchor (-GPI)"  
 FT  
 FN WO200029849-A1.  
 XX 25-MAY-2000.  
 PD 27-OCT-1999; 99WO-FI000896.  
 PE 17-NOV-1998; 98FI-00002480.  
 PR (WALL-) WALLAC OY.  
 PA (BBSR-) BBSRC OFFICE.  
 XX Hope J, Barnard GJR, Birkett CR;  
 XX WPI; 2000-399778/34.  
 DR New immunoassay for prion protein, used for determination of  
 XX transmissible spongiform encephalopathies in mammals, comprises specific  
 XX capture antibody.  
 XX Disclosure; Page 43-44; 50pp; English.  
 XX The present sequence is the human prion protein (PrP) sequence.  
 CC Conversion of the normal cellular form of PrP into an aggregated,  
 CC insoluble isoform is implicated in the pathogenesis of Transmissible  
 CC Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine  
 CC Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jacob disease (CJD)  
 CC and Gerstmann-Strausler-Sheinker syndrome (GSS). The concentration of  
 CC this protein in body fluid or tissue samples may be measured by an assay  
 CC of the present invention, in which a PrP epitope is captured by an  
 CC antibody, which is then detected. The presence of PrP indicates TSE. PrP  
 CC epitopes (AAB07320-B07326) are derived from the protease resistant core  
 CC of PrP that is occluded when the PrP is in an aggregated state  
 XX  
 SQ Sequence 208 AA;  
 Query Match 100.0%; Score 244; DB 3; Length 208;  
 Best Local Similarity 100.0%; Pred. No. 1.1e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQMCI 46  
 Db 148 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQMCI 193

## RESULT 10

ABG31902  
 ID ABG31902 standard; protein; 208 AA.

XX AC ABG31902;

XX XX 05-NOV-2002 (first entry)

XX DE Human prion protein related protein #2.

XX KW Prion; human; follicular dendritic cells; FDC; infection;  
 blood preparation; food; cosmetic; CJD; Creutzfeldt-Jacob disease.

XX XX Homo sapiens.

XX FN WO200261418-A1.

XX PD 08-AUG-2002.

XX PF 31-JAN-2002; 2002WO-JP000803.

XX PR 31-JAN-2001; 2001JP-00024279.

XX PA (TOHO ) UNIV TOHOKU.

XX PI Kitamoto T, Miyoshi K, Mohri S;

XX DR WPI; 2002-619277/66.

XX PT Screening (non-)human prion disease infection factor based on abnormal  
 prion protein sedimentation in non-human follicular dendritic cells as  
 PT indication, applicable in safety test on e.g. drugs and cosmetics.

XX PS Disclosure; Page 49-50; 69pp; Japanese.

XX CC This invention relates to a novel method for screening human or non-  
 human prion disease infection factor in a sample by using abnormal prion  
 CC protein sedimentation in non-human follicular dendritic cells (FDC) as  
 CC indication. The method of the invention is useful for screening (non-)  
 CC human prion disease infection factor, which is applicable in safety tests  
 CC on drugs like blood preparations, foods and cosmetics, and for developing  
 CC drugs for e.g. CJD, as well as for early diagnosis of Creutzfeldt-Jacob  
 CC disease (CJD). The method of the invention is simple and quick. The  
 CC present sequence represents a human prion related protein of the  
 CC invention

XX SQ Sequence 208 AA;

Query Match 100.0%; Score 244; DB 5; Length 208;  
 Best Local Similarity 100.0%; Pred. No. 1.1e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQMCI 46  
 Db 148 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQMCI 193

## RESULT 11

AAB72342  
 ID AAB72342 standard; peptide; 245 AA.

XX AC AAB72342;

XX XX 06-AUG-2003 (revised)

DT 17-MAY-2001 (first entry)

XX DE Monkey prion protein cellular form (PrPc) amino acid sequence.

XX XX Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;  
 KW prion disease; spongiform encephalopathies; Scrapie; monkey;  
 KW bovine spongiform encephalopathy; BSE; Creutzfeldt-Jacob disease.  
 XX OS Primates.

XX PH Location/Qualifiers  
 FT Key 176. .221  
 FT Region /note= "Stable region, specifically claimed in claim 3"

XX PN WO200107479-A2.

XX PD 01-FEB-2001.

XX PF 25-JUL-2000; 2000WO-GB002873.

XX PR 27-JUL-1999; 99GB-00017491.

XX PR 30-JUL-1999; 99GB-00017878.

XX PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.

XX PI Collinge J, Clarke AR, Walthe JP, Jackson GS, Hosszu LLP;

XX DR WPI; 2001-168538/17.

XX PT New prion peptide for treating, preventing and/or diagnosing prion  
 PT diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in  
 PT cows and Creutzfeldt-Jacob disease in humans.

XX PS Claim 3; Fig 5; 69pp; English.

XX CC This invention relates to a peptide fragment of a cellular form of prion  
 CC protein PrPc located around a disulphide bond found in PrPc. The stable  
 CC structure is a specific marker of PrPc but not soluble prion protein  
 CC (PrPsc). The PrPc peptide sequences can be used to generate an antibody  
 CC or binding agent that binds PrPc. The antibody is used to detect or  
 CC remove PrPc and may be used in preventative medicine. The antibody may  
 CC be used in the prevention, treatment or diagnosis of a prion disease,  
 CC e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine  
 CC spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jacob disease  
 CC (CJD) in humans. The present sequence represents the cellular form of  
 CC monkey prion protein, the stable region of the protein may be used in the  
 CC production of anti-PrPc antibodies. (Updated on 06-AUG-2003 to correct OS  
 CC field.)

XX SQ Sequence 245 AA;

Query Match 100.0%; Score 244; DB 4; Length 245;  
 Best Local Similarity 100.0%; Pred. No. 1.3e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQMCI 46  
 Db 162 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQMCI 207

## RESULT 12

AAB72352  
 ID AAB72352 standard; peptide; 245 AA.

XX AC AAB72352;

XX DT 17-MAY-2001 (first entry)

XX DE Cercopithecus prion protein cellular form (PrPc) amino acid sequence.

XX KW Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;  
 KW prion disease; spongiform encephalopathies; Scrapie; cercopithecus;  
 KW bovine spongiform encephalopathy; BSE; Creutzfeldt-Jacob disease.

XX OS Cercopithecus sp.

FH Key Location/Qualifiers  
 FT Region 176..221  
 FN /note= "Stable region, specifically claimed in claim 3"  
 PV WO200107479-A2.  
 PX  
 PY  
 PD 01-FEB-2001.  
 PE  
 PF 25-JUL-2000; 2000WO-GB002873.  
 PG  
 PH 27-JUL-1999; 99GB-00017491.  
 PI 30-JUL-1999; 99GB-00017878.  
 PJ (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.  
 PK Collinge J, Clarke AR, Waltho JP, Jackson GS, Hosszu LLP;  
 PL WPI; 2001-168538/17.  
 PM  
 PN New prion peptide for treating, preventing and/or diagnosing prion  
 PT diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in  
 PU cows and Creutzfeldt-Jakob disease in humans.  
 PV  
 PW Claim 3; Fig 5; 69pp; English.  
 PX  
 PY This invention relates to a peptide fragment of a cellular form of prion  
 PZ protein PrPc located around a disulphide bond found in PrPc. The stable  
 Q1 structure is a specific marker of PrPc but not soluble prion protein  
 Q2 (PrPSc). The PrPc peptide sequences can be used to generate an antibody  
 Q3 or binding agent that binds PrPc. The antibody is used to detect or  
 Q4 remove PrPc, and may be used in preventative medicine. The antibody may  
 Q5 be used in the prevention, treatment or diagnosis of a prion disease,  
 Q6 e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine  
 Q7 spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease  
 Q8 (CJD) in humans. The present sequence represents the cellular form of  
 Q9 cerophilus prion protein, the stable region of the protein may be used  
 Q10 in the production of anti-PrPc antibodies  
 Q11  
 Q12 Sequence 245 AA;  
 Q13  
 Q14 Query Match 100.0%; Score 244; DB 4; Length 245;  
 Q15 Best Local Similarity 100.0%; Pred. No. 1.3e-23;  
 Q16 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Q17  
 Q18 1 SQNNFVHDCVNITIKQHTVTTTKGENFTTDTVKMERVVEQMCI 46  
 Q19 ||||||||||||||||||||||||||||||||||||||||||||  
 Q20 162 SQNNFVHDCVNITIKQHTVTTTKGENFTTDTVKMERVVEQMCI 207  
 Q21  
 Q22 RESULT 13  
 Q23 AAR86715  
 Q24 ID AAR86715 standard; protein; 253 AA.  
 Q25  
 Q26 AC AAR86715;  
 Q27  
 Q28 XX  
 Q29 XX 15-OCT-1996 (first entry)  
 Q30 DT  
 Q31 DE Human prion protein, HuPrP.  
 Q32  
 Q33 XX Chimeric gene; chimeric prion; transgenic animal; diagnosis;  
 Q34 KW spongiform encephalopathy; PrP; central nervous system; CNS;  
 Q35 KW Creutzfeldt-Jakob disease; CJD; BSE.  
 Q36  
 Q37 OS Homo sapiens.  
 Q38  
 Q39 XX WO9531466-A1.  
 Q40 PN  
 Q41 XX 23-NOV-1995.  
 Q42 PD  
 Q43 PF 10-APR-1995; 95WO-US004426.  
 Q44 XX  
 Q45 PR 13-MAY-1994; 94US-00242188.  
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 Q47 XX  
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 Q998  
 Q999  
 Q1000

CC generally only infect a genetically diverse mammal due to the presence of  
CC the exogenous PrP gene and ablated endogenous PrP gene. It exhibits  
CC symptoms of prion disease within 200 days or less after inoculation with  
CC prions which generally only infect a genetically diverse mammal. Also  
CC described in the present invention are: (A) a method of producing the  
CC transgenic mouse; and (B) determining the presence of infectious prions  
CC in a sample obtained from a bovine. The transgenic mouse is used to  
CC detect for Creutzfeldt Jakob disease (CJD) a fatal neurodegenerative  
CC disease of humans caused by prions. The present sequence represents human  
CC prion protein (HuPrP), used in an example from the present invention.  
CC (Updated on 25-MAR-2003 to correct PF field.)  
XX  
XX  
SQ Sequence 253 AA;

Query Match 100.0%; Score 244; DB 2; Length 253;  
Best Local Similarity 100.0%; Pred. No. 1.4e-23;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGTGKGFNTETDVKMMERVEQMCI 46  
Db 170 SNQNNFVHDCVNITIKOHTVTTTGTGKGFNTETDVKMMERVEQMCI 215

RESULT 15

AAW85901  
ID AAW85901 standard; peptide; 253 AA.

XX AC AAW85901;

XX DT 12-FEB-1999 (first entry)

XX DE Human prion protein (PrP) sequence.

XX PrP; PrP(Sc); scrapie; isoform; antibody; prion; CJD; screening;  
XX Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;  
XX cosmetic; therapeutic; human.

XX OS Homo sapiens.

XX PN US9846533-A.

XX PD 08-DEC-1998.

XX PF 13-SEP-1996; 96US-00713939.

XX PR 14-SEP-1995; 95US-00528104.

XX (REGC ) UNIV CALIFORNIA.

XX (SCRI ) SCRIPPS RES INST.

XX PI Prusiner SB, Williamson RA, Burton DR;

XX WPI; 1999-058996/05.

XX Antibody specific for scrapie isoform of prion protein - useful for  
XX diagnosis and therapy.

XX Disclosure; Col 41-42; 58pp; English.

XX This represents a human prion protein (PrP) sequence. The invention  
XX relates to an antibody that is capable of binding to native PrP(Sc), the  
XX scrapie isoform of PrP. The antibody is produced by a method that  
XX comprises synthesizing a library of antibodies on phages, contacting the  
XX phages with a composition containing PrP proteins, isolating phages that  
XX bind to native PrP(Sc) in situ, obtaining an antibody from the phages,  
XX and optionally analysing the phages to determine a nucleic acid sequence  
XX encoding an amino acid sequence to which the native PrP(Sc) binds. The  
XX antibody is used to detect disease-associated PrP, especially in  
XX Creutzfeldt-Jakob disease (CJD) and distinguish it from normal PrP. They  
XX can also be used to neutralise the infectivity of PrP(Sc). Assays using  
XX the antibodies can be used to screen for disease-associated PrP in  
XX pharmaceutical products, foods and cosmetics or for therapeutic purposes

SQ Sequence 253 AA;

Query Match 100.0%; Score 244; DB 2; Length 253;  
Best Local Similarity 100.0%; Pred. No. 1.4e-23;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGTGKGFNTETDVKMMERVEQMCI 46  
Db 170 SNQNNFVHDCVNITIKOHTVTTTGTGKGFNTETDVKMMERVEQMCI 215

Search completed: July 26, 2005, 11:54:01  
Job time : 92.75 secs



GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 26, 2005, 11:44:13 ; Search time 23.5 Seconds  
(without alignments)  
146.122 Million cell updates/sec

Title: US-10-031-975-1\_COPY\_176\_221

Perfect score: 244

Sequence: 1 SNQNFVHDCVNITIKOHTV.....ENFTETDKMVRVEQMCI 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Issued Patents AA.\*

- 1: /cgn2\_6/ptodata/1/iaa/5A COMB.pep.\*
- 2: /cgn2\_6/ptodata/1/iaa/5B COMB.pep.\*
- 3: /cgn2\_6/ptodata/1/iaa/6A COMB.pep.\*
- 4: /cgn2\_6/ptodata/1/iaa/6B COMB.pep.\*
- 5: /cgn2\_6/ptodata/1/iaa/PCTUS COMB.pep.\*
- 6: /cgn2\_6/ptodata/1/iaa/backfiles1.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	244	100.0	142	1	US-08-556-823-10
2	244	100.0	245	4	US-09-431-887-5
3	244	100.0	245	4	US-09-431-887-15
4	244	100.0	252	4	US-09-431-887-17
5	244	100.0	253	1	US-08-242-188-2
6	244	100.0	253	1	US-08-509-261A-2
7	244	100.0	253	1	US-08-660-626-8
8	244	100.0	253	1	US-08-692-892-2
9	244	100.0	253	2	US-08-713-939A-2
10	244	100.0	253	2	US-08-868-162A-22
11	244	100.0	253	3	US-09-031-168-8
12	244	100.0	253	3	US-09-128-450-20
13	244	100.0	253	3	US-09-036-579-2
14	244	100.0	253	3	US-09-823-494-20
15	244	100.0	253	3	US-09-550-374-2
16	244	100.0	253	4	US-09-431-887-1
17	244	100.0	253	4	US-09-431-887-3
18	244	100.0	253	4	US-09-431-887-4
19	244	100.0	253	4	US-09-431-887-7
20	244	100.0	253	4	US-09-431-887-9
21	244	100.0	253	4	US-09-431-887-10
22	244	100.0	253	4	US-09-431-887-11
23	244	100.0	253	4	US-09-431-887-12
24	244	100.0	253	4	US-09-431-887-14
25	244	100.0	253	4	US-09-431-887-16
26	244	100.0	253	4	US-09-431-887-18
27	244	100.0	253	4	US-09-943-906-2

Sequence 8, Appli  
Sequence 57, Appl  
Sequence 72, Appl  
Sequence 3, Appli  
Sequence 1, Appli  
Sequence 1, Appli  
Sequence 7, Appli  
Sequence 1, Appli  
Sequence 21, Appli  
Sequence 7, Appli  
Sequence 19, Appli  
Sequence 28, Appl  
Sequence 1, Appli  
Sequence 19, Appli  
Sequence 28, Appl  
Sequence 1, Appli  
Sequence 20, Appli

28 244 100.0 253 4 US-09-669-516C-8  
29 244 100.0 253 4 US-09-919-172-57  
30 244 100.0 253 4 US-09-976-594-72  
31 244 100.0 253 4 US-09-904-987-3  
32 243 99.6 254 1 US-08-242-188-1  
33 243 99.6 254 1 US-08-509-261A-1  
34 243 99.6 254 1 US-08-660-626-7  
35 243 99.6 254 1 US-08-692-892-1  
36 243 99.6 254 2 US-08-713-939A-1  
37 243 99.6 254 2 US-08-868-162A-21  
38 243 99.6 254 3 US-09-031-168-7  
39 243 99.6 254 3 US-09-128-450-19  
40 243 99.6 254 3 US-09-128-450-28  
41 243 99.6 254 3 US-09-036-579-1  
42 243 99.6 254 3 US-09-823-494-19  
43 243 99.6 254 3 US-09-823-494-28  
44 243 99.6 254 3 US-09-550-374-1  
45 243 99.6 254 4 US-09-431-887-20

ALIGNMENTS

RESULT 1  
US-08-556-823-10  
; Sequence 10, Application US/08556823  
; Patent No. 5750361  
; GENERAL INFORMATION:  
; APPLICANT: Stanley B. Prusiner  
; APPLICANT: Kiyotoshi Kaneko  
; APPLICANT: Fred E. Cohen  
; TITLE OF INVENTION: Formation and use of prion protein  
; TITLE OF INVENTION: Formation and use of prion protein  
; NUMBER OF SEQUENCES: 10  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson  
; STREET: 2200 Sand Hill Road, Suite 100  
; CITY: Menlo Park  
; STATE: California  
; COUNTRY: USA  
; ZIP: 94025  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: ABCIII  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/556,823  
; FILING DATE:  
; CLASSIFICATION: 530  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Valeta Gregg  
; REGISTRATION NUMBER: 35,127  
; REFERENCE/DOCKET NUMBER: 07532/003001  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (415) 322-5070  
; TELEFAX: (415) 854-0875  
; INFORMATION FOR SEQ ID NO: 10:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 142 amino acids  
; TYPE: amino acid  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
US-08-556-823-10

Query Match 100.0%; Score 244; DB 1; Length 142;  
Best Local Similarity 100.0%; Pred. No. 6.5e-26;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 SNQNFVHDCVNITIKOHTVTTTTTGTGKGFETDVKMVRVEQMCI 46  
Db 81 SNQNFVHDCVNITIKOHTVTTTTTGTGKGFETDVKMVRVEQMCI 126

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RESULT 2
US-09-431-887-5
; Sequence 5, Application US/09431887
; Patent No. 6534036
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE
; FILE REFERENCE: ICOT/P21952
; CURRENT APPLICATION NUMBER: US/09/431.887
; PRIOR FILING DATE: 1999-11-02
; PRIOR APPLICATION NUMBER: GB 9824091.4
; PRIOR FILING DATE: 1999-11-04
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
; LENGTH: 245
; TYPE: PRT
; ORGANISM: Cercopithecus aethiops
US-09-431-887-5
Query Match 100.0%; Score 244; DB 4; Length 245;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 SNQNFVHDCVNITIKQHTVTTTGGNFETDVKMERVVEQMCI 46
Db 162 SNQNFVHDCVNITIKQHTVTTTGGNFETDVKMERVVEQMCI 207
RESULT 3
US-09-431-887-15
; Sequence 15, Application US/09431887
; Patent No. 6534036
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE
; FILE REFERENCE: ICOT/P21952
; CURRENT APPLICATION NUMBER: US/09/431.887
; PRIOR FILING DATE: 1999-11-02
; PRIOR APPLICATION NUMBER: GB 9824091.4
; PRIOR FILING DATE: 1999-11-04
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 15
; LENGTH: 245
; TYPE: PRT
; ORGANISM: Cercopithecus diana
US-09-431-887-15
Query Match 100.0%; Score 244; DB 4; Length 245;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 SNQNFVHDCVNITIKQHTVTTTGGNFETDVKMERVVEQMCI 46
Db 162 SNQNFVHDCVNITIKQHTVTTTGGNFETDVKMERVVEQMCI 207
RESULT 4
US-09-431-887-17
; Sequence 17, Application US/09431887
; Patent No. 6534036
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE
; FILE REFERENCE: ICOT/P21952
; CURRENT APPLICATION NUMBER: US/09/431.887
; PRIOR FILING DATE: 1999-11-02
; PRIOR APPLICATION NUMBER: GB 9824091.4
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; PRIOR FILING DATE: 1999-11-04
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 17
; LENGTH: 252
; TYPE: PRT
; ORGANISM: Cebus sp.
US-09-431-887-17
Query Match 100.0%; Score 244; DB 4; Length 252;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 SNQNFVHDCVNITIKQHTVTTTGGNFETDVKMERVVEQMCI 46
Db 169 SNQNFVHDCVNITIKQHTVTTTGGNFETDVKMERVVEQMCI 214
RESULT 5
US-08-242-188-2
; Sequence 2, Application US/08242188
; Patent No. 5565186
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Scott, Michael R.
; APPLICANT: Telling, Glenn
; TITLE OF INVENTION: METHOD OF DETECTING PRIONS IN A SAMPLE
; TITLE OF INVENTION: AND TRANSGENIC ANIMAL USED FOR SAME
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Karl Bosicevic
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/242,188
; FILING DATE: 13-MAY-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Bosicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/014001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-5277
; TELEFAX: (415) 854-0875
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 253 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: HUMAN PRION PROTEIN, HuPrP
US-08-242-188-2
Query Match 100.0%; Score 244; DB 1; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 SNQNFVHDCVNITIKQHTVTTTGGNFETDVKMERVVEQMCI 46
Db 170 SNQNFVHDCVNITIKQHTVTTTGGNFETDVKMERVVEQMCI 215
RESULT 6
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US-08-509-261A-2  
; Sequence 2, Application US/08509261A  
; Patent No. 5763244  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: Scott, Michael R.  
; APPLICANT: Telling, Glenn  
; TITLE OF INVENTION: Method of Detecting Prions  
; TITLE OF INVENTION: in a Sample and Transgenic Animal Used for  
; NUMBER OF SEQUENCES: 4  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Bozicevic & Reed, LLP  
; STREET: 285 Hamilton Avenue, Suite 200  
; CITY: Palo Alto  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 94301

COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette  
; COMPUTER: IBM Compatible  
; OPERATING SYSTEM: DOS  
; SOFTWARE: FastSeq for Windows Version 2.0  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/509,261A  
; FILING DATE: 31-JUL-1995  
; CLASSIFICATION: 800  
; PRIOR APPLICATION NUMBER:  
; FILING DATE:  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Bozicevic, Karl  
; REGISTRATION NUMBER: 28,807  
; REFERENCE/DOCKET NUMBER: 6510-030001

TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 650-327-3400  
; TELEFAX: 650-327-3231  
; TELEX:  
; INFORMATION FOR SEQ ID NO: 2:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 253 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear

US-08-509-261A-2

Query Match 100.0%; Score 244; DB 1; Length 253;  
Best Local Similarity 100.0%; Pred. No. 1.3e-25;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 SNQNFVHDCVNITIKQHTVTTTKGENFTETDKMMRVVEQMCI 46  
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Db 170 SNQNFVHDCVNITIKQHTVTTTKGENFTETDKMMRVVEQMCI 215  
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RESULT 7

US-08-660-626-8

; Sequence 8, Application US/08660626

; Patent No. 5789655

; GENERAL INFORMATION:

; APPLICANT: Stanley B. Prusiner

; APPLICANT: Glenn C. Telling

; APPLICANT: Fred E. Cohen

; APPLICANT: Michael R. Scott

; TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING

; TITLE OF INVENTION: EPITOPE-TAGGED PROTEINS

; NUMBER OF SEQUENCES: 13

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Fish & Richardson

; STREET: 2200 Sand Hill Road, Suite 100

; CITY: Menlo Park

; STATE: California

; COUNTRY: USA

; ZIP: 94025

COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patentin Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/692,892

; FILING DATE: 30-JULY-1996

; CLASSIFICATION:

; ATTORNEY/AGENT INFORMATION:

; NAME: Bozicevic, Karl

; REGISTRATION NUMBER: 28,807

; REFERENCE/DOCKET NUMBER: 06510/056001

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (415) 322-5070

; TELEFAX: (415) 854-0875

; INFORMATION FOR SEQ ID NO: 2:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 253 amino acids

COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Asciii

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/660,626

; FILING DATE:

; CLASSIFICATION: 435

; ATTORNEY/AGENT INFORMATION:

; NAME: Valeta Gregg

; REGISTRATION NUMBER: 35,127

; REFERENCE/DOCKET NUMBER: 07532/003001

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (415) 322-5070

; TELEFAX: (415) 854-0875

; INFORMATION FOR SEQ ID NO: 8:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 253 amino acids

; TYPE: amino acid

; STRANDEDNESS: single

; MOLECULE TYPE: peptide

; ORIGINAL SOURCE:

; ORGANISM: HUMAN PRION PROTEIN, HuPrP

US-08-660-626-8

Query Match 100.0%; Score 244; DB 1; Length 253;  
Best Local Similarity 100.0%; Pred. No. 1.3e-25;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 SNQNFVHDCVNITIKQHTVTTTKGENFTETDKMMRVVEQMCI 46  
|||||

Db 170 SNQNFVHDCVNITIKQHTVTTTKGENFTETDKMMRVVEQMCI 215  
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RESULT 8

US-08-692-892-2

; Sequence 2, Application US/08692892

; Patent No. 5792901

; GENERAL INFORMATION:

; APPLICANT: Prusiner, Stanley B.

; APPLICANT: Scott, Michael R.

; APPLICANT: Telling, Glenn

; TITLE OF INVENTION: DETECTING PRIONS IN A SAMPLE AND

; TITLE OF INVENTION: PRION PREPARATION AND TRANSGENIC ANIMAL USED FOR SAME

; NUMBER OF SEQUENCES: 4

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Karl Bozicevic

; STREET: 2200 Sand Hill Road

; CITY: Menlo Park

; STATE: CA

; COUNTRY: USA

; ZIP: 94025

COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patentin Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/692,892

; FILING DATE: 30-JULY-1996

; CLASSIFICATION:

; ATTORNEY/AGENT INFORMATION:

; NAME: Bozicevic, Karl

; REGISTRATION NUMBER: 28,807

; REFERENCE/DOCKET NUMBER: 06510/056001

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (415) 322-5070

; TELEFAX: (415) 854-0875

; INFORMATION FOR SEQ ID NO: 2:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 253 amino acids

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; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: HUMAN PRION PROTEIN, HuPrP
US-08-692-892-2

Query Match 100.0%; Score 244; DB 1; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKQHTVTTTGGKGFETDVKMERVVEQNCI 46
Db 170 SNQNNFVHDCVNITIKQHTVTTTGGKGFETDVKMERVVEQNCI 215

RESULT 9
US-08-713-939A-2
; Sequence 2, Application US/08713939A
; Patent No. 5846533
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Williamson, R. Anthony
; APPLICANT: Burton, Dennis R.
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: U.S.A.
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/713,939A
; FILING DATE: 13-SEP-1996
; CLASSIFICATION: 436
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/059001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-854-5277
; TELEFAX: 415-854-0875
; TELEX:
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 253 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-713-939A-2

Query Match 100.0%; Score 244; DB 2; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKQHTVTTTGGKGFETDVKMERVVEQNCI 46
Db 170 SNQNNFVHDCVNITIKQHTVTTTGGKGFETDVKMERVVEQNCI 215

RESULT 10
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US-08-868-162A-22
; Sequence 22, Application US/08868162A
; Patent No. 5962669
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley
; APPLICANT: Cohen, Fred
; APPLICANT: James, Thomas
; APPLICANT: Kaneko, Kiyotoshi
; TITLE OF INVENTION: Prion Protein Modulator Factor
; TITLE OF INVENTION:
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bozicevic & Reed, LLP
; STREET: 285 Hamilton Avenue, Suite 200
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94301
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/868,162A
; FILING DATE: 03-JUN-1997
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 6510-083001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-327-3400
; TELEFAX: 650 327-3231
; TELEX:
; INFORMATION FOR SEQ ID NO: 22:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 253 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: HUMAN PRION PROTEIN, HuPrP
US-08-868-162A-22

Query Match 100.0%; Score 244; DB 2; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKQHTVTTTGGKGFETDVKMERVVEQNCI 46
Db 170 SNQNNFVHDCVNITIKQHTVTTTGGKGFETDVKMERVVEQNCI 215

RESULT 11
US-09-031-168-8
; Sequence 8, Application US/09031168
; Patent No. 6150583
; GENERAL INFORMATION:
; APPLICANT: Stanley B. Prusiner
; APPLICANT: Glenn C. Telling
; APPLICANT: Fred E. Cohen
; APPLICANT: Michael R. Scott
; TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING
; TITLE OF INVENTION: EPITOPE-TAGGED PROTEINS
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson
; STREET: 2200 Sand Hill Road, Suite 100
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; CITY: Menlo Park
; STATE: California
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: AscIII
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/031,168
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/660,626
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Valeta Gregg
; REGISTRATION NUMBER: 35,127
; REFERENCE/DOCKET NUMBER: 07532/003001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 322-5070
; TELEFAX: (415) 854-0875
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 253 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: HUMAN PRION PROTEIN, HuPrP
; US-09-031-168-8

Query Match 100.0%; Score 244; DB 3; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQNCI 46
Db 170 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQNCI 215

RESULT 12
US-09-128-450-20
; Sequence 20, Application US/09128450
; Patent No. 6211149
; GENERAL INFORMATION:
; APPLICANT: Chesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; TITLE OF INVENTION: Protein
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/128,450
; CURRENT FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: Patent in ver. 2.0
; SEQ ID NO 20
; LENGTH: 253
; TYPE: PRP
; ORGANISM: Homo sapiens
; US-09-128-450-20

Query Match 100.0%; Score 244; DB 3; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQNCI 46
Db 170 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQNCI 215

RESULT 13
US-09-036-579-2
; Sequence 2, Application US/09036579
; Patent No. 6290954
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Williamson, R. Anthony
; APPLICANT: Burton, Dennis R
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: U.S.A.
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/036,579
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/713,939
; FILING DATE: 13-SEP-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/059001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-854-5277
; TELEFAX: 415-854-0875
; TELEX:
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 253 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-09-036-579-2

Query Match 100.0%; Score 244; DB 3; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQNCI 46
Db 170 SNQNFVHDCVNITIKQHTVTTTKGENFTETDVKMMRVVEQNCI 215

RESULT 14
US-09-823-494-20
; Sequence 20, Application US/09823494
; Patent No. 6355610
; GENERAL INFORMATION:
; APPLICANT: Chesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; TITLE OF INVENTION: Protein
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/823,494
; CURRENT FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
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OM protein - protein search, using sw model

Run on: July 26, 2005, 11:48:04 ; Search time 80.75 Seconds  
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Title: US-10-031-975-1\_COPY\_176\_221

Perfect score: 244

Sequence: 1 SNQNFVHDCVNITIKQHTV.....ENFTETDVQWVRVEQMCI 46

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Total number of hits satisfying chosen parameters: 1741741

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

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21: /cgn2\_6/ptodata/2/pubpaa/US60\_NEW\_PUB.pep.\*  
22: /cgn2\_6/ptodata/2/pubpaa/US60\_PUBCOMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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1	244	100.0	117	14	US-10-050-902-348
2	244	100.0	117	14	Sequence 348, App
3	244	100.0	117	15	US-10-050-898-348
4	244	100.0	141	16	US-10-346-190-89
5	244	100.0	162	9	US-10-612-356A-1
6	244	100.0	163	15	US-09-745-003-10
7	244	100.0	200	16	US-10-104-047-2013
8	244	100.0	208	16	US-10-470-848-10
9	244	100.0	208	16	US-10-470-848-3
10	244	100.0	245	14	US-10-745-393-1
11	244	100.0	245	14	US-10-304-630-5
					Sequence 15, Appl

12	244	100.0	252	14	US-10-304-630-17
13	244	100.0	253	9	US-09-823-494-20
14	244	100.0	253	9	US-09-904-987-3
15	244	100.0	253	9	US-09-919-172-57
16	244	100.0	253	9	US-09-943-906-2
17	244	100.0	253	14	US-10-304-630-1
18	244	100.0	253	14	US-10-304-630-3
19	244	100.0	253	14	US-10-304-630-4
20	244	100.0	253	14	US-10-304-630-7
21	244	100.0	253	14	US-10-304-630-9
22	244	100.0	253	14	US-10-304-630-10
23	244	100.0	253	14	US-10-304-630-11
24	244	100.0	253	14	US-10-304-630-12
25	244	100.0	253	14	US-10-304-630-14
26	244	100.0	253	14	US-10-304-630-16
27	244	100.0	253	14	US-10-304-630-18
28	244	100.0	253	14	US-10-301-488A-21
29	244	100.0	253	14	US-10-301-488A-22
30	244	100.0	253	14	US-10-301-488A-32
31	244	100.0	253	15	US-10-410-907A-8
32	244	100.0	253	15	US-10-346-190-79
33	244	100.0	253	15	US-10-435-602-2
34	244	100.0	253	15	US-10-301-448-21
35	244	100.0	253	15	US-10-301-448-22
36	244	100.0	253	15	US-10-301-448-32
37	244	100.0	253	16	US-10-648-593-151
38	244	100.0	253	16	US-10-470-848-2
39	244	100.0	253	16	US-10-772-656-54
40	244	100.0	253	16	US-10-723-860-1745
41	244	100.0	253	16	US-10-752-986-57
42	244	100.0	253	17	US-10-728-246-13
43	244	100.0	253	17	US-10-949-880-4
44	244	100.0	253	17	US-10-949-880-5
45	244	100.0	253	17	US-10-475-558-2

#### ALIGNMENTS

RESULT 1  
US-10-050-902-348  
; Sequence 348, Application US/10050902  
; Publication No. US20030175290A1  
; GENERAL INFORMATION:  
; APPLICANT: Renner, Wolfgang A.  
; APPLICANT: Bachmann, Martin  
; APPLICANT: Tissot, Alain  
; APPLICANT: Maurer, Patrick  
; APPLICANT: Lechner, Franziska  
; APPLICANT: Sebbel, Peter  
; APPLICANT: Piossek, Christine  
; TITLE OF INVENTION: Molecular Antigen Array  
; FILE REFERENCE: 1700.0190004  
; CURRENT APPLICATION NUMBER: US/10/050,902  
; CURRENT FILING DATE: 2002-01-18  
; PRIOR APPLICATION NUMBER: US 60/262,379  
; PRIOR FILING DATE: 2001-01-19  
; PRIOR APPLICATION NUMBER: US 60/288,549  
; PRIOR FILING DATE: 2001-05-04  
; PRIOR APPLICATION NUMBER: US 60/326,998  
; PRIOR FILING DATE: 2001-10-05  
; PRIOR APPLICATION NUMBER: US 60/331,045  
; PRIOR FILING DATE: 2001-11-07  
; NUMBER OF SEQ ID NOS: 350  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 348  
; LENGTH: 117  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Modified human prion protein fragment  
US-10-050-902-348





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Best Local Similarity 100.0%; Pred. No. 7.7e-24;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGGKGFETDVKMMRVVEQMCI 46
Db 79 SNQNNFVHDCVNITIKOHTVTTTGGKGFETDVKMMRVVEQMCI 124

RESULT 6
US-10-104-047-2013
; Sequence 2013, Application US/10104047
; Publication No. US20030236392A1
; GENERAL INFORMATION:
; APPLICANT: HELIX RESEARCH INSTITUTE
; TITLE OF INVENTION: NO. US20030236392A1e1 full length cDNA
; FILE REFERENCE: H1-A0105
; CURRENT APPLICATION NUMBER: US/10/104,047
; CURRENT FILING DATE: 2002-03-25
; PRIOR FILING DATE:
; PRIOR APPLICATION NUMBER:
; NUMBER OF SEQ ID NOS: 4096
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2013
; LENGTH: 163
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-104-047-2013

Query Match 100.0%; Score 244; DB 15; Length 163;
Best Local Similarity 100.0%; Pred. No. 7.8e-24;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGGKGFETDVKMMRVVEQMCI 46
Db 80 SNQNNFVHDCVNITIKOHTVTTTGGKGFETDVKMMRVVEQMCI 125

RESULT 7
US-10-470-848-10
; Sequence 10, Application US/10470848
; Publication No. US20040137421A1
; GENERAL INFORMATION:
; APPLICANT: President of Tohoku University
; TITLE OF INVENTION: Method of Screening for Infection Factor of Prion Disease
; FILE REFERENCE: PH-1224-PCT
; CURRENT APPLICATION NUMBER: US/10/470,848
; CURRENT FILING DATE: 2003-07-31
; PRIOR FILING DATE: JP 2001-24279
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 10
; LENGTH: 200
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-470-848-10

Query Match 100.0%; Score 244; DB 16; Length 200;
Best Local Similarity 100.0%; Pred. No. 1e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGGKGFETDVKMMRVVEQMCI 46
Db 140 SNQNNFVHDCVNITIKOHTVTTTGGKGFETDVKMMRVVEQMCI 185

RESULT 8
US-10-470-848-3
; Sequence 3, Application US/10470848
; Publication No. US20040137421A1
; GENERAL INFORMATION:
; APPLICANT: President of Tohoku University
; TITLE OF INVENTION: Method of Screening for Infection Factor of Prion Disease
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; FILE REFERENCE: PH-1224-PCT
; CURRENT APPLICATION NUMBER: US/10/470,848
; CURRENT FILING DATE: 2003-07-31
; PRIOR APPLICATION NUMBER: JP 2001-24279
; PRIOR FILING DATE: 2001-01-31
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 208
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-470-848-3

Query Match 100.0%; Score 244; DB 16; Length 208;
Best Local Similarity 100.0%; Pred. No. 1e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGGKGFETDVKMMRVVEQMCI 46
Db 148 SNQNNFVHDCVNITIKOHTVTTTGGKGFETDVKMMRVVEQMCI 193

RESULT 9
US-10-745-393-1
; Sequence 1, Application US/10745393
; Publication No. US20040203131A1
; GENERAL INFORMATION:
; APPLICANT: Patatz, Elke
; APPLICANT: Scholz, Christian
; APPLICANT: Stock, Werner
; APPLICANT: Schaarschmidt, Peter
; TITLE OF INVENTION: Complexes comprising a prion protein and peptidyl prolyl isomeras
; TITLE OF INVENTION: chaperone, and method for producing and using them
; FILE REFERENCE: 12290 US3 (9793/141)
; CURRENT APPLICATION NUMBER: US/10/745,393
; CURRENT FILING DATE: 2003-12-23
; PRIOR APPLICATION NUMBER: EP 01115225.3
; PRIOR FILING DATE: 2001-06-22
; PRIOR APPLICATION NUMBER: EP 01120939.2
; PRIOR FILING DATE: 2001-08-31
; PRIOR APPLICATION NUMBER: US 10/167,774
; PRIOR FILING DATE: 2002-06-10
; PRIOR APPLICATION NUMBER: US 10/179,905
; PRIOR FILING DATE: 2002-06-24
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
; LENGTH: 208
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-745-393-1

Query Match 100.0%; Score 244; DB 16; Length 208;
Best Local Similarity 100.0%; Pred. No. 1e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGGKGFETDVKMMRVVEQMCI 46
Db 148 SNQNNFVHDCVNITIKOHTVTTTGGKGFETDVKMMRVVEQMCI 193

RESULT 10
US-10-304-630-5
; Sequence 5, Application US/10304630
; Publication No. US20030161836A1
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE
; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF PRION DISEASE
; FILE REFERENCE: ICOT/P21952
; CURRENT APPLICATION NUMBER: US/10/304,630
; CURRENT FILING DATE: 2002-11-26
; PRIOR APPLICATION NUMBER: US/09/431,887
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; PRIOR FILING DATE: 1999-11-02
; PRIOR APPLICATION NUMBER: GB 9824091.4
; PRIOR FILING DATE: 1999-11-04
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
; LENGTH: 245
; TYPE: PR
; ORGANISM: Cercopithecus aethiops
US-10-304-630-5

Query Match      100.0%; Score 244; DB 14; Length 245;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKOHTVTTTGGKGFETDVKMERVVEQNCI 46
Db 162 SNQNFVHDCVNITIKOHTVTTTGGKGFETDVKMERVVEQNCI 207

RESULT 11
US-10-304-630-15
; Sequence 15, Application US/10304630
; Publication No. US20030161836A1
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE
; FILE REFERENCE: ICOT/P21952
; CURRENT APPLICATION NUMBER: US/10/304,630
; CURRENT FILING DATE: 2002-11-26
; PRIOR APPLICATION NUMBER: US/09/431,887
; PRIOR FILING DATE: 1999-11-02
; PRIOR APPLICATION NUMBER: GB 9824091.4
; PRIOR FILING DATE: 1999-11-04
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 15
; LENGTH: 245
; TYPE: PR
; ORGANISM: Cercopithecus diana
US-10-304-630-15

Query Match      100.0%; Score 244; DB 14; Length 245;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKOHTVTTTGGKGFETDVKMERVVEQNCI 46
Db 162 SNQNFVHDCVNITIKOHTVTTTGGKGFETDVKMERVVEQNCI 207

RESULT 12
US-10-304-630-17
; Sequence 17, Application US/10304630
; Publication No. US20030161836A1
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE
; FILE REFERENCE: ICOT/P21952
; CURRENT APPLICATION NUMBER: US/10/304,630
; CURRENT FILING DATE: 2002-11-26
; PRIOR APPLICATION NUMBER: US/09/431,887
; PRIOR FILING DATE: 1999-11-02
; PRIOR APPLICATION NUMBER: GB 9824091.4
; PRIOR FILING DATE: 1999-11-04
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 17
; LENGTH: 252
; TYPE: PR
; ORGANISM: Cebus sp.
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US-10-304-630-17

Query Match      100.0%; Score 244; DB 14; Length 252;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKOHTVTTTGGKGFETDVKMERVVEQNCI 46
Db 169 SNQNFVHDCVNITIKOHTVTTTGGKGFETDVKMERVVEQNCI 214

RESULT 13
US-09-823-494-20
; Sequence 20, Application US/09823494
; Publication No. US20010041790A1
; GENERAL INFORMATION:
; APPLICANT: Chesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Joette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/823,494
; CURRENT FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 20
; LENGTH: 253
; TYPE: PR
; ORGANISM: Homo sapiens
US-09-823-494-20

Query Match      100.0%; Score 244; DB 9; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKOHTVTTTGGKGFETDVKMERVVEQNCI 46
Db 170 SNQNFVHDCVNITIKOHTVTTTGGKGFETDVKMERVVEQNCI 215

RESULT 14
US-09-904-987-3
; Sequence 3, Application US/09904987
; Patent No. US20020037908A1
; GENERAL INFORMATION:
; APPLICANT: No. US20020037908A1actyl, Inc.
; TITLE OF INVENTION: Methods and Compositions for Controlling Pathological and Prepath
; FILE REFERENCE: 42108/26146
; CURRENT APPLICATION NUMBER: US/09/904,987
; CURRENT FILING DATE: 2001-07-12
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
; LENGTH: 253
; TYPE: PR
; ORGANISM: homo sapiens
; PUBLICATION INFORMATION:
; DATABASE ACCESSION NUMBER: NCBI ENTREZ / XM_009567
; DATABASE ENTRY DATE: 2001-04-17
; RELEVANT RESIDUES: (1) ..(253)
US-09-904-987-3

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Best Local Similarity 100.0%; Pred. No. 1.3e-23;
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Qy 1 SNQNFVHDCVNITIKOHTVTTTGGKGFETDVKMERVVEQNCI 46
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Db 170 SNQNNFVHDCVNITIKOHTVTTTTKGENFTETDVKMMERVVEQMC I 215

RESULT 15

US-09-919-172-57  
 ; Sequence 57, Application US/09919172  
 ; Patent No. US20020119463A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Farris, Mary  
 ; APPLICANT: Turner, Christopher M.  
 ; TITLE OF INVENTION: PROSTATE CANCER MARKERS  
 ; FILE REFERENCE: PA-0036 US  
 ; CURRENT APPLICATION NUMBER: US/09/919,172  
 ; CURRENT FILING DATE: 2001-07-30  
 ; PRIOR APPLICATION NUMBER: 60/222,469  
 ; PRIOR FILING DATE: 2000-07-28  
 ; NUMBER OF SEQ ID NOS: 102  
 ; SOFTWARE: PERL Program  
 ; SEQ ID NO 57  
 ; LENGTH: 253  
 ; TYPE: PRT  
 ; ORGANISM: Homo sapiens  
 ; FEATURE:  
 ; NAME/KEY: misc feature  
 ; OTHER INFORMATION: Incyte ID No. US20020119463A1 1256895CD1  
 US-09-919-172-57

Query Match 100.0%; Score 244; DB 9; Length 253;  
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Qy 1 SNQNNFVHDCVNITIKOHTVTTTTKGENFTETDVKMMERVVEQMC I 46  
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 Db 170 SNQNNFVHDCVNITIKOHTVTTTTKGENFTETDVKMMERVVEQMC I 215

Search completed: July 26, 2005, 12:07:52  
 Job time : 80.75 secs

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GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: July 26, 2005, 11:43:08 ; Search time 16.75 Seconds  
(without alignments)  
264.237 Million cell updates/sec

Title: US-10-031-975-1\_COPY\_176\_221  
Perfect score: 244  
Sequence: 1 SNQNFVHDCVNITIKOHTV.....ENFTETDVQKMERVVEQMCI 46

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000  
Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : FIR\_79:.\*  
1: pir1.\*  
2: pir2.\*  
3: pir3.\*  
4: pir4.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	244	100.0	241	2	S71048
2	244	100.0	241	2	S71056
3	244	100.0	245	2	S71045
4	244	100.0	253	1	UUHU
5	244	100.0	253	2	I84423
6	244	100.0	253	2	S71055
7	244	100.0	253	2	I37032
8	243	99.6	226	2	A53892
9	243	99.6	252	2	I61848
10	243	99.6	254	2	A23544
11	242	99.2	264	2	S37137
12	241	98.8	232	2	S71041
13	240	98.4	254	2	B34759
14	240	98.4	254	2	A34759
15	239	98.0	245	2	S53627
16	239	98.0	252	2	S53631
17	239	98.0	253	2	S53624
18	239	98.0	253	2	S53623
19	239	98.0	253	2	S53620
20	239	98.0	253	2	S53625
21	239	98.0	253	2	S53635
22	239	98.0	253	2	S53614
23	239	98.0	253	2	I61847
24	239	98.0	253	2	S53616
25	239	98.0	253	2	S53618
26	239	98.0	253	2	S53619
27	239	98.0	256	2	JU0268
28	239	98.0	264	2	A54330
29	238	97.5	256	2	S37149

30	238	97.5	256	2	A54281	major prion protei
31	238	97.5	260	2	S53629	major prion protei
32	236	96.7	252	2	S53634	major prion protei
33	235	96.3	239	2	S53633	major prion protei
34	235	96.3	257	2	JQ1900	major prion protei
35	234	95.9	253	2	S53617	major prion protei
36	233	95.5	252	2	JC6175	prion protein - ra
37	232	95.1	254	1	UJHYIH	major prion PrP-Sc
38	232	95.1	257	2	A23545	major prion PrP27-
39	77	31.6	267	2	A37372	prion protein homo
40	76	31.1	267	1	UUCH	major prion protei
41	76	31.1	273	2	A46280	prion protein - ch
42	61.5	25.2	533	1	D71338	probable ribose/ga
43	60.5	24.8	182	2	A10130	conserved hypotet
44	59	24.2	139	2	H90004	hypothetical prote
45	58.5	24.0	258	2	AF2524	hypothetical prote

ALIGNMENTS

RESULT 1

S71048  
major prion protein - Callicebus moloch (fragment)  
C:Species: Callicebus moloch  
C>Date: 27-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
C:Accession: S71048; S53632  
R:Schatz1, H.M.  
submitted to the EMBL Data Library, April 1994  
A:Reference number: S71041  
A:Accession: S71048  
A:Molecule type: DNA  
A:Residues: 1-241 <SCH>  
A:Cross-references: UNIPROT:P40248; EMBL:U08312; MID:g475585; PIDN:AAC50100.1; PID:g475585  
R:Schatz1, H.M.; da Costa, M.; Taylor, L.; Cohen, F.B.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A>Title: Prion protein gene variation among primates.  
A:Reference number: S53614; MUID:95139066; PMID:7837269  
A:Accession: S53632  
A>Status: nucleic acid sequence not shown  
A:Molecule type: DNA  
A:Residues: 1-203, 'R', 205-240 <SCW>  
A:Cross-references: EMBL:U08312  
C:Superfamily: major prion protein  
C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 100.0%; Score 244; DB 2; Length 241;  
Best Local Similarity 100.0%; Pred. No. 1.4e-22;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKOHTVTTTGTGNETETDVQKMERVVEQMCI 46  
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Db 163 SNQNFVHDCVNITIKOHTVTTTGTGNETETDVQKMERVVEQMCI 208  
|||||

RESULT 2

S71056  
major prion protein - mandrill (fragment)  
C:Species: Papio spinx, Mandrillus sphinx (mandrill)  
C>Date: 27-Oct-1996 #sequence\_revision 14-Feb-1997 #text\_change 09-Jul-2004  
C:Accession: S71056; S53621  
R:Schatz1, H.M.  
submitted to the EMBL Data Library, April 1994  
A:Reference number: S71041  
A:Accession: S71056  
A:Molecule type: DNA  
A:Residues: 1-241 <SCH>  
A:Cross-references: UNIPROT:P40255; EMBL:U08303; MID:g474364; PIDN:AAC50091.1; PID:g474364  
R:Schatz1, H.M.; da Costa, M.; Taylor, L.; Cohen, F.B.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A>Title: Prion protein gene variation among primates.  
A:Reference number: S53614; MUID:95139066; PMID:7837269  
A:Accession: S53621



RESULT 5  
184423  
major prion protein precursor - rhesus macaque  
C/Species: Macaca mulatta (rhesus macaque)  
C/Date: 24-May-1996 #sequence\_revision 24-May-1996 #text\_change 09-Jul-2004  
C/Accession: I84423; S53622; S71054  
R/Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.;  
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994  
A/Title: Infectious amyloid precursor gene sequences in primates used for experimental  
A/Reference number: I36907; MUID:95083661; PMID:7991600  
A/Accession: I84423  
A/Status: preliminary; translated from GB/EMBL/DBJ  
A/Molecule type: DNA  
A/Residues: 1-253 <RES>  
A/Cross-references: UNIPROT:P40254; EMBL:U15163; NID:G595850; PIDN:AAA68635.1; PID:G5958  
R/Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A/Title: Prion protein gene variation among primates.  
A/Reference number: S53614; MUID:95139066; PMID:7837269  
A/Accession: S53622  
A/Status: nucleic acid sequence not shown  
A/Molecule type: DNA  
A/Residues: 1-210, 'R', 212-253 <SCH>  
A/Cross-references: EMBL:U08307  
R/Schaezel, H.M.  
submitted to the EMBL Data Library, April 1994  
A/Reference number: S71041  
A/Accession: S71054  
A/Molecule type: DNA  
A/Residues: 1-253 <SCH>  
A/Cross-references: EMBL:U08307; NID:G474372; PIDN:AA50095.1; PID:G474373  
C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 100.0%; Score 244; DB 2; Length 253;  
Best Local Similarity 100.0%; Pred. No. 1.5e-22;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGTGKGFETDVKMMRVVEQNCI 46  
Db 170 SNQNNFVHDCVNITIKOHTVTTTGTGKGFETDVKMMRVVEQNCI 215

RESULT 6  
S71055  
major prion protein - pig-tailed macaque  
C/Species: Macaca nemestrina (pig-tailed macaque)  
C/Date: 14-Feb-1997 #sequence\_revision 14-Feb-1997 #text\_change 09-Jul-2004  
C/Accession: S71055; S53626  
R/Schaezel, H.M.  
submitted to the EMBL Data Library, April 1994  
A/Reference number: S71041  
A/Accession: S71055  
A/Molecule type: DNA  
A/Residues: 1-253 <SCH>  
A/Cross-references: UNIPROT:P40254; EMBL:U08306; NID:G474370; PIDN:AA50094.1; PID:G4743  
R/Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A/Title: Prion protein gene variation among primates.  
A/Reference number: S53614; MUID:95139066; PMID:7837269  
A/Accession: S53626  
A/Status: nucleic acid sequence not shown  
A/Molecule type: DNA  
A/Residues: 8-210, 'R', 212-247 <SCH>  
A/Cross-references: EMBL:U08306  
C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 100.0%; Score 244; DB 2; Length 253;  
Best Local Similarity 100.0%; Pred. No. 1.5e-22;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGTGKGFETDVKMMRVVEQNCI 46  
Db 170 SNQNNFVHDCVNITIKOHTVTTTGTGKGFETDVKMMRVVEQNCI 215

RESULT 7  
I37032  
major prion protein precursor - gorilla  
C/Species: Gorilla gorilla (gorilla)  
C/Date: 31-May-1996 #sequence\_revision 31-May-1996 #text\_change 09-Jul-2004  
C/Accession: I37032  
R/Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.;  
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994  
A/Title: Infectious amyloid precursor gene sequences in primates used for experimental  
A/Reference number: I36907; MUID:95083661; PMID:7991600  
A/Accession: I37032  
A/Status: preliminary; translated from GB/EMBL/DBJ  
A/Molecule type: DNA  
A/Residues: 1-253 <RES>  
A/Cross-references: UNIPROT:P40252; EMBL:U15166; NID:G563208; PIDN:AAA68633.1; PID:G5632  
C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 100.0%; Score 244; DB 2; Length 253;  
Best Local Similarity 100.0%; Pred. No. 1.5e-22;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGTGKGFETDVKMMRVVEQNCI 46  
Db 170 SNQNNFVHDCVNITIKOHTVTTTGTGKGFETDVKMMRVVEQNCI 215

RESULT 8  
A53892  
Prion-related protein - rat (fragment)  
C/Species: Rattus norvegicus (Norway rat)  
C/Date: 07-Oct-1994 #sequence\_revision 07-Oct-1994 #text\_change 09-Jul-2004  
C/Accession: A53892  
R/Liao, Y.C.; Tokes, Z.; Lim, E.; Lackey, A.; Woo, C.H.; Button, J.D.; Clawson, G.A.  
Lab. Invest. 57, 370-374, 1987  
A/Title: Cloning of rat "prion-related protein" cDNA.  
A/Reference number: A53892; MUID:98037055; PMID:2889848  
A/Accession: A53892  
A/Status: preliminary  
A/Molecule type: mRNA  
A/Residues: 1-226 <LIA>  
A/Cross-references: UNIPROT:P13852; GB:M20313; NID:G2063391; PIDN:AAA41947.1; PID:G206339  
C/Keywords: major prion protein

Query Match 99.6%; Score 243; DB 2; Length 226;  
Best Local Similarity 97.8%; Pred. No. 1.7e-22;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNNFVHDCVNITIKOHTVTTTGTGKGFETDVKMMRVVEQNCI 46  
Db 142 SNQNNFVHDCVNITIKOHTVTTTGTGKGFETDVKMMRVVEQNCV 187

RESULT 9  
I61848  
major prion protein precursor - common squirrel monkey  
C/Species: Saimiri sciureus (common squirrel monkey)  
C/Date: 31-May-1996 #sequence\_revision 31-May-1996 #text\_change 09-Jul-2004  
C/Accession: I61848  
R/Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.;  
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994  
A/Title: Infectious amyloid precursor gene sequences in primates used for experimental  
A/Reference number: I36907; MUID:95083661; PMID:7991600  
A/Accession: I61848  
A/Status: preliminary; translated from GB/EMBL/DBJ  
A/Molecule type: DNA  
A/Residues: 1-252 <RES>  
A/Cross-references: UNIPROT:P40258; EMBL:U15165; NID:G595852; PIDN:AAA68636.1; PID:G5958  
C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 99.6%; Score 243; DB 2; Length 252;  
Best Local Similarity 97.8%; Pred. No. 1.9e-22;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 SNQNFVHDCVNITIKOHTVTTTGTGNTFTETDVKKMERVVEQNCI 46  
|||||  
Db 169 SNQNFVHDCVNITIKOHTVTTTGTGNTFTETDVKKMERVVEQNCI 214  
|||||

RESULT 10  
A23544  
major prion protein precursor - mouse  
N;Alternate names: PrP; Scrapie prion  
C;Species: Mus musculus (house mouse)  
C;Date: 22-Jul-1987 #sequence\_revision 22-Jul-1987 #text\_change 09-Jul-2004  
C;Accession: A29669; A23544; S02521; A22315  
R;Westaway, D.; Goodman, P.A.; Mirenda, C.A.; McKinley, M.P.; Carlson, G.A.; Prusiner, S.  
Cell 51, 651-662, 1987  
A;Title: Distinct prion proteins in short and long scrapie incubation period mice.  
A;Reference number: A29669; MUID:88052869; PMID:2890436  
A;Accession: A29669  
A;Molecule type: DNA  
A;Residues: 1-254 <RES>  
A;Cross-references: UNIPROT:P04925; GB:M18070; NID:G200528; PIDN:AAA39997.1; PID:G200529  
A;Experimental source: strains NZW and I/LnJ  
A;Note: the sequence shown is from the NZW strain; the sequence from the I/LnJ strain di  
R;Locht, C.; Chesebro, B.; Race, R.; Keith, J.M.  
Proc. Natl. Acad. Sci. U.S.A. 83, 6372-6376, 1986  
A;Reference number: A23544; MUID:86313583; PMID:3462700  
A;Accession: A23544  
A;Molecule type: mRNA  
A;Residues: 1-254 <LOC>  
R;Hope, J.; Multhaup, G.; Reekie, L.J.D.; Kimberlin, R.H.; Beyreuther, K.  
Eur. J. Biochem. 172, 271-277, 1988  
A;Title: Molecular pathology of scrapie-associated fibril protein (PrP) in mouse brain a  
A;Reference number: S02521; MUID:88166695; PMID:2894984  
A;Accession: S02521  
A;Molecule type: protein  
A;Residues: 1-254 <HOP>  
R;Chesebro, B.; Race, R.; Wehrly, K.; Nishio, J.; Bloom, M.; Lechner, D.; Bergstrom, S.;  
Nature 315, 331-333, 1985  
A;Title: Identification of scrapie prion protein-specific mRNA in scrapie-infected and u  
A;Reference number: A22315; MUID:85213844; PMID:3923361  
A;Accession: A22315  
A;Molecule type: mRNA  
A;Residues: 87-132, 'V', 134-164 <CHE>  
C;Superfamily: major prion protein  
C;Keywords: amyloid; blocked carboxyl end; brain; glycoprotein; lipoprotein; phosphatidy  
P;1-22/Domain: signal sequence #status predicted <SIG>  
P;23-231/Product: major prion protein #status predicted <MAT>  
P;232-254/Domain: carboxyl-terminal propeptide #status predicted <CTP>  
P;178-213/Diulfide bonds: #status predicted  
P;180,196/Binding site: carbohydrate (Asn) (covalent) #status predicted  
P;231/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form

Query Match 99.6%; Score 243; DB 2; Length 254;  
Best Local Similarity 97.8%; Pred. No. 1.9e-22;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 SNQNFVHDCVNITIKOHTVTTTGTGNTFTETDVKKMERVVEQNCI 46  
|||||  
Db 169 SNQNFVHDCVNITIKOHTVTTTGTGNTFTETDVKKMERVVEQNCV 214  
|||||

RESULT 11  
S37137  
Prion protein - greater kudu  
C;Species: Tragelaphus strepsiceros (greater kudu)  
C;Date: 06-Jan-1995 #sequence\_revision 06-Jan-1995 #text\_change 09-Jul-2004  
C;Accession: S37137  
R;Martin, T.C.; Hughes, S.L.; Hughes, K.J.; Dawson, M.  
submitted to the EMBL Data Library, August 1993

A;Reference number: S37137  
A;Accession: S37137  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-264 <MAR>  
A;Cross-references: UNIPROT:P40242; EMBL:X74771; NID:G398937; PIDN:CAA52781.1; PID:G39893;  
C;Superfamily: major prion protein

Query Match 99.2%; Score 242; DB 2; Length 264;  
Best Local Similarity 95.7%; Pred. No. 2.7e-22;  
Matches 44; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 SNQNFVHDCVNITIKOHTVTTTGTGNTFTETDVKKMERVVEQNCI 46  
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Db 181 SNQNFVHDCVNITIKOHTVTTTGTGNTFTETDVKKMERVVEQNCI 226  
|||||

RESULT 12  
S71041  
major prion protein - black-handed spider monkey (fragment)  
C;Species: Ateles geoffroyi (black-handed spider monkey)  
C;Date: 27-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
C;Accession: S71041; S53630  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71041  
A;Molecule type: DNA  
A;Residues: 1-232 <SCH>  
A;Cross-references: UNIPROT:P40246; EMBL:U08309; NID:G474376; PIDN:AA50097.1; PID:G4743;  
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139086; PMID:7837269  
A;Accession: S53630  
A;Molecule type: DNA  
A;Residues: 1-194, 'R', 196-231 <SCW>  
A;Cross-references: EMBL:U08309  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 98.8%; Score 241; DB 2; Length 232;  
Best Local Similarity 97.8%; Pred. No. 3.1e-22;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 SNQNFVHDCVNITIKOHTVTTTGTGNTFTETDVKKMERVVEQNCI 46  
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Db 154 SNQNFVHDCVNITIKOHTVTTTGTGNTFTETDVKKMERVVEQNCI 199  
|||||

RESULT 13  
B34759  
prion protein - golden hamster  
C;Species: Mesocricetus auratus (golden hamster)  
C;Date: 13-Jul-1990 #sequence\_revision 13-Jul-1990 #text\_change 13-Aug-1999  
C;Accession: B34759  
R;Lowenstein, D.H.; Bulter, D.A.; Westaway, D.; McKinley, M.P.; Dearmond, S.J.; Prusiner,  
Mol. Cell. Biol. 10, 1153-1163, 1990  
A;Title: Three hamster species with different scrapie incubation times and neuropatholog:  
A;Reference number: A34759; MUID:90158578; PMID:2406562  
A;Accession: B34759  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-254 <LOW>  
A;Cross-references: GB:M33959; NID:G191182; PIDN:AAA37014.1; PID:G191183  
C;Superfamily: major prion protein

Query Match 98.4%; Score 240; DB 2; Length 254;  
Best Local Similarity 95.7%; Pred. No. 4.5e-22;  
Matches 44; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 SNQNFVHDCVNITIKOHTVTTTGTGNTFTETDVKKMERVVEQNCI 46  
|||||



```
Db      170 NNQNNFVHDCVNIITIKQHTVTTTKGENFTETDVKKMERVVEQMCV 215
:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
RESULT 14
A34759
prion protein - Chinese hamster
C:Species: Cricetulus griseus (Chinese hamster)
C>Date: 13-Jul-1990 #sequence_revision 13-Jul-1990 #text_change 09-Jul-2004
C:Accession: A34759
R:Lowenstein, D.H.; Butler, D.A.; Westaway, D.; McKinley, M.P.; DeArmond, S.J.; Prusiner
Mol. Cell. Biol. 10, 1153-1163, 1990
A:Title: Three hamster species with different scrapie incubation times and neuropatholog
A:Reference number: A34759; MUID:90158578; PMID:2406562
A:Accession: A34759
A>Status: preliminary
A:Molecule type: DNA
A:Residues: 1-254 <LOW>
A:Cross-references: UNIPROT:Q60506; GB:M33958; NID:g191180; PIDN:AAA37013.1; PID:g387056
C:Superfamily: major prion protein

Query Match      98.4%; Score 240; DB 2; Length 254;
Best Local Similarity 95.7%; Pred. No. 4.5e-22;
Matches 44; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy      1 SNQNNFVHDCVNIITIKQHTVTTTKGENFTETDVKKMERVVEQMCV 46
:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db      170 NNQNNFVHDCVNIITIKQHTVTTTKGENFTETDVKKMERVVEQMCV 215

RESULT 15
S53627
major prion protein - green monkey
C:Species: Cercopithecus aethiops (green monkey, grivet)
C>Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C:Accession: S53627; S71043
R:Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A:Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066; PMID:7837269
A:Accession: S53627
A>Status: nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-245 <SCH>
A:Cross-references: UNIPROT:P40250; EMBL:U08291
submitted to the EMBL Data Library, April 1994
A:Reference number: S71041
A:Accession: S71043
A:Molecule type: DNA
A:Residues: 1-10,'V',12-202,'E',204-245 <SCW>
A:Cross-references: EMBL:U08291; NID:g474340; PIDN:AAC50080.1; PID:g474341
C:Superfamily: major prion protein
C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match      98.0%; Score 239; DB 2; Length 245;
Best Local Similarity 97.8%; Pred. No. 5.8e-22;
Matches 45; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy      1 SNQNNFVHDCVNIITIKQHTVTTTKGENFTETDVKKMERVVEQMCV 46
:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db      162 SNQNNFVHDCVNIITIKQHTVTTTKGENFTETDVKKMERVVRQMCV 207

Search completed: July 26, 2005, 12:00:43
Job time : 17.75 secs
```

**This Page Blank (uspto)**

GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 26, 2005, 11:42:12 ; Search time 81 Seconds  
(without alignments)  
290.810 Million cell updates/sec

Title: US-10-031-975-1\_COPY\_176\_221

Perfect score: 244

Sequence: 1 SNQNFVHDCVNITIKQTV.....ENFTETDKMWRVEQMCI 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

UniProt\_03.\*

1: uniprot\_sprot.\*

2: uniprot\_trembl.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	244	100.0	238	1	P67990 cercocebus
2	244	100.0	238	1	P67991 macaca sylv
3	244	100.0	238	1	Q95270 theropithec
4	244	100.0	238	2	Q86XRI homo sapien
5	244	100.0	241	1	P40248 callicebus
6	244	100.0	241	1	P40255 mandrillus
7	244	100.0	245	1	P67988 cercopithec
8	244	100.0	245	1	P67989 cercopithec
9	244	100.0	246	1	P61761 cercopithec
10	244	100.0	246	1	P61762 cercopithec
11	244	100.0	246	1	Q95176 cercocebus
12	244	100.0	246	1	Q95174 erythrocebu
13	244	100.0	252	1	P40249 cebus apell
14	244	100.0	253	1	P40251 colobus que
15	244	100.0	253	1	P40252 gorilla gor
16	244	100.0	253	1	P40156 homo sapien
17	244	100.0	253	1	P67993 macaca arc
18	244	100.0	253	1	P67992 macaca fusc
19	244	100.0	253	1	P67994 macaca fusc
20	244	100.0	253	1	P67997 macaca mula
21	244	100.0	253	1	P67995 macaca mula
22	244	100.0	253	1	P67996 papio hamad
23	244	100.0	253	1	P40256 pongo pygma
24	244	100.0	253	1	P40257 presbytis f
25	244	100.0	253	2	Q6FGH8 homo sapien
26	244	100.0	253	2	Q6JL99 macaca mula
27	244	100.0	277	2	Q6SE81 homo sapien
28	244	100.0	285	2	O75942 homo sapien
29	243	99.6	248	2	Q866V6 diceros bic
30	243	99.6	253	2	Q920T5 meriones un
31	243	99.6	254	1	P04925 mus musculus

32	243	99.6	254	1	PRI0_RAT
33	243	99.6	254	2	Q8VHV6
34	243	99.6	260	1	PRI0_SAISC
35	242	99.2	220	2	Q866W7
36	242	99.2	226	2	O97907
37	242	99.2	227	2	O97909
38	242	99.2	256	1	PRP2_TRAST
39	242	99.2	264	1	PRP1_TRAST
40	241	98.8	232	1	PRI0_ATSGE
41	241	98.8	232	1	PRI0_CALJA
42	240	98.4	239	1	PRI0_AOTTR
43	240	98.4	240	2	Q8VHV4
44	240	98.4	248	2	Q8VHV5
45	240	98.4	254	1	PRI0_CRIGR

## ALIGNMENTS

### RESULT 1

ID	PRI0_CERAT	STANDARD;	PRT;	238 AA.
AC	P67990; Q95145; Q95200;			
DT	01-NOV-1997 (Rel. 35, Created)			
DT	01-NOV-1997 (Rel. 35, Last sequence update)			
DT	25-OCT-2004 (Rel. 45, Last annotation update)			
DE	Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).			
GN	Name=PRNP;			
OS	Cercocebus atterrimus (Black mangabey).			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;			
OC	Cercopithecoidea; Cercocebus.			
OX	NCBI_TaxID=36222;			
OX	[1]			
RN	SEQUENCE FROM N.A.			
RA	van der Kuyl A.C., Dekker J.T., Goudsmit J.;			
RT	"Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion."			
RT	Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.			
RL	Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.			
CC	-!- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells (By similarity).			
CC	-!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "ronds" (By similarity).			
CC	-!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By similarity).			
CC	-!- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.			
CC	-!- SIMILARITY: Belongs to the prion family.			
CC	EMBL; U75384; AAB50623.1; -			
CC	HSPB; P23907; IG04			
CC	InterPro; IPR000817; Prion.			
CC	Pfam; PF00377; Prion; 1.			
CC	Pfam; PF03991; Prion octapep; 5.			
CC	PRINTS; PR00341; PRION.			
CC	PROSITE; PS00291; PRION 1; 1.			
CC	PROSITE; PS00706; PRION_2; 1.			
CC	Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.			
CC	NON TER			
CC	SIGNAL			
CC	CHAIN			

```

FT PROPEP 216 238 Removed in mature form (By similarity).
FT LIPID 215 GPI-anchor amidated serine (By similarity).
FT DISULFID 164 199 By similarity.
FT CARBOHYD 166 166 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 182 182 N-linked (GlcNAc...) (Potential).
FT DOMAIN 44 76 4 X 8 AA tandem repeats of P-H-G-G-W-G-Q.
FT REPEAT 44 52 1.
FT REPEAT 53 60 2.
FT REPEAT 61 68 3.
FT REPEAT 69 76 4.
SQ SEQUENCE 238 AA; 26123 MW; 5F59A3EBC3E351B CRC64;

Query Match 100.0%; Score 244; DB 1; Length 238;
Best Local Similarity 100.0%; Pred. No. 9.9e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQMCI 46
Db 155 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQMCI 200

RESULT 2
PRIO_MACSY STANDARD; PRT; 238 AA.
AC P67991; Q95145; Q95200;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
GN Name=PRNP;
OS Macaca sylvanus (Barbary ape).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecoidea; Macaca.
OX NCBI_TaxID=9546;
RN [1]
RP SEQUENCE FROM N.A.
RA van der Kuyl A.C., Dekker J.T., Goudsmit J.;
RT "Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion.";
RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells (By similarity).
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "ronds" (By similarity).
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By similarity).
CC -1- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.
CC -1- SIMILARITY: Belongs to the prion family.
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CC EMBL; U75382; AAB50629.1; --
CC HSSP; P23907; 1G04.
CC InterPro; IPR000817; Prion.
CC Pfam; PF00377; Prion; 1.
CC Pfam; PF03991; Prion octapep; 5.
CC PROSITE; PS00291; PRION_1; 1.
CC PROSITE; PS00706; PRION_2; 1.

```

```

KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
FT NON_TER 1 1
FT SIGNAL <1 15 By similarity.
FT CHAIN 16 215 Major prion protein.
FT PROPEP 216 238 Removed in mature form (By similarity).
FT LIPID 215 215 GPI-anchor amidated serine (By similarity).
FT DISULFID 164 199 By similarity.
FT CARBOHYD 166 166 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 182 182 N-linked (GlcNAc...) (Potential).
FT DOMAIN 44 76 4 X 8 AA tandem repeats of P-H-G-G-W-G-Q.
FT REPEAT 44 52 1.
FT REPEAT 53 60 2.
FT REPEAT 61 68 3.
FT REPEAT 69 76 4.
SQ SEQUENCE 238 AA; 26123 MW; 5F59A3EBC3E351B CRC64;

Query Match 100.0%; Score 244; DB 1; Length 238;
Best Local Similarity 100.0%; Pred. No. 9.9e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQMCI 46
Db 155 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQMCI 200

RESULT 3
PRIO_THEGE STANDARD; PRT; 238 AA.
AC Q95270;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
GN Name=PRNP; Synonyms=PRP;
OS Theropithecus gelada (Gelada baboon).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecoidea; Theropithecus.
OX NCBI_TaxID=9565;
RN [1]
RP SEQUENCE FROM N.A.
RA van der Kuyl A.C., Dekker J.T., Goudsmit J.;
RT "Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion.";
RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "ronds".
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -1- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.
CC -1- SIMILARITY: Belongs to the prion family.
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CC EMBL; U75383; AAB50630.1; --
CC HSSP; P23907; 1G04.
CC InterPro; IPR000817; Prion.
CC Pfam; PF00377; Prion; 1.
CC Pfam; PF03991; Prion octapep; 5.
CC PROSITE; PR00341; PRION.

```

DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 KW Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;  
 KW Signal  
 FT NON\_TER 1 1  
 FT SIGNAL <1 15 By similarity.  
 FT CHAIN 16 215 Major prion protein.  
 FT PROPEP 216 >238 Removed in mature form (By similarity).  
 FT DISULFID 164 199 By similarity.  
 FT LIPID 215 215 GPI-anchor amidated serine (By similarity).  
 FT CARBOHYD 166 166 N-linked (GlcNAc... ) (Potential).  
 FT CARBOHYD 182 182 N-linked (GlcNAc... ) (Potential).  
 FT DOMAIN 44 83 4 X 8 AA tandem repeats of P-H-G-G-W-G-Q.  
 FT REPEAT 44 52 1.  
 FT REPEAT 53 60 2.  
 FT REPEAT 61 68 3.  
 FT REPEAT 69 76 4.  
 FT NON\_TER 238 238  
 SQ SEQUENCE 238 AA; 26104 MW; 5F59BFF602243EDB CRC64;  
 Query Match 100.0%; Score 244; DB 1; Length 238;  
 Best Local Similarity 100.0%; Pred. No. 9.9e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQMCI 46  
 Db 155 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQMCI 200

RESULT 4  
 Q86XR1 PRELIMINARY; PRT; 238 AA.  
 AC Q86XR1  
 DT 01-JUN-2003 (TrEMBLrel. 24, Created)  
 DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)  
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)  
 DE Prion protein (Fragment).  
 GN Name=PRNP;  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 OX NCBI\_TaxID=9606;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Jeong B.H., Lee Y.J., Lee K.H., Kim Y.S.;  
 RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.  
 CC -1- SIMILARITY: Belongs to the prion family.  
 DR EMBL; AY219882; AA083635.1; --  
 DR HSSP; P04156; 114M.  
 DR InterPro; IPR000817; Prion.  
 DR Pfam; PF03991; Prion octapep; 5.  
 DR PRINTS; PR00341; PRION.  
 DR SMART; SM00157; PRP; 1.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 KW Prion.  
 FT NON\_TER 1 1  
 FT NON\_TER 238 238  
 SQ SEQUENCE 238 AA; 26108 MW; EC9FA42623F3BBAAE CRC64;  
 Query Match 100.0%; Score 244; DB 2; Length 238;  
 Best Local Similarity 100.0%; Pred. No. 9.9e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQMCI 46  
 Db 155 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQMCI 200

RESULT 5  
 PRIO\_CALMO

ID AC PRIO\_CALMO STANDARD; PRT; 241 AA.  
 DT P40248;  
 DT 01-FEB-1995 (Rel. 31, Created)  
 DT 01-FEB-1995 (Rel. 31, Last sequence update)  
 DT 05-JUL-2004 (Rel. 44, Last annotation update)  
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).  
 GN Name=PRNP;  
 OS Callicebus moloch (Dusky titi).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Callicebinae;  
 OC Callicebus.  
 OX NCBI\_TaxID=9523;  
 RN [1]  
 RN SEQUENCE 241 AA; 26373 MW; C6D2013BE7CAEC93 CRC64;  
 RX MEDLINE=95139066; PubMed=7837269;  
 RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;  
 RT "Prion protein gene variation among primates.";  
 RL J. Mol. Biol. 245:362-374(1995).  
 CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.  
 CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".  
 CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
 CC -1- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.  
 CC -1- SIMILARITY: Belongs to the prion family.  
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 CC EMBL; U08312; AAC50100.1; --  
 DR PIR; S71048; S71048.  
 DR HSSP; P23907; IG04.  
 DR InterPro; IPR000817; Prion.  
 DR Pfam; PF00377; Prion; 1.  
 DR Pfam; PF03991; Prion octapep; 6.  
 DR PRINTS; PR00341; PRION.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 KW Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;  
 KW Signal.  
 FT NON\_TER 1 1  
 FT SIGNAL <1 15 By similarity.  
 FT CHAIN 16 223 Major prion protein.  
 FT PROPEP 224 >241 Removed in mature form (By similarity).  
 FT DISULFID 172 207 By similarity.  
 FT LIPID 223 223 GPI-anchor amidated serine (By similarity).  
 FT CARBOHYD 174 174 N-linked (GlcNAc... ) (Potential).  
 FT CARBOHYD 190 190 N-linked (GlcNAc... ) (Potential).  
 FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-W-G-Q.  
 FT REPEAT 44 52 1.  
 FT REPEAT 53 60 2.  
 FT REPEAT 61 68 3.  
 FT REPEAT 69 76 4.  
 FT REPEAT 77 84 5.  
 FT NON\_TER 241 241  
 SQ SEQUENCE 241 AA; 26373 MW; C6D2013BE7CAEC93 CRC64;  
 Query Match 100.0%; Score 244; DB 1; Length 241;  
 Best Local Similarity 100.0%; Pred. No. 1e-22;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQMCI 46

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Db 163 SNQNFVHDCVNITIKQHTVTTTGGKGFETDVKQMRVVEQMC 208
|||||
Query Match 100.0%; Score 244; DB 1; Length 241;
Best Local Similarity 100.0%; Pred. No. 1e-22; Indels 0; Gaps 0;
Matches 46; Conservative 0; Mismatches 0;

QY 1 SNQNFVHDCVNITIKQHTVTTTGGKGFETDVKQMRVVEQMC 46
Db 163 SNQNFVHDCVNITIKQHTVTTTGGKGFETDVKQMRVVEQMC 208

RESULT 6
PRIO CERAE STANDARD; PRT; 241 AA.
AC P40255;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
GN Name=PRNP;
OS Mandillus sphinx (Mandrill) (Papio sphinx).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecinae; Mandrillus.
OX NCBI_TaxID=9561;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95139066; PubMed=7837269;
RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells.
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "rods".
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -1- DISEASE: PrP is found in high quantity in the brain of humans and
CC animals infected with the degenerative neurological diseases kuru,
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC transmissible mink encephalopathy (TME), etc.
CC -1- SIMILARITY: Belongs to the prion family.
CC -----
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CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL; U08303; AAC50091.1; -.
DR PIR; S71056; S71056.
DR HSPP; P23907; IG04.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prionoctapep; 6.
DR PRINTS; PR00341; PRION.
DR PROSITE; PS00291; PRION 1; 1.
DR PROSITE; PS00706; PRION 2; 1.
DR GlycoProtein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
FT NON_TER 1 1
FT SIGNAL <1 15 By similarity.
FT CHAIN 16 223 Major prion protein.
FT PROPEP 224 >241 Removed in mature form (By similarity).
FT LIPID 223 223 GPI-anchor amidated serine (By
FT similarity).
FT FT 172 207 By similarity.
FT FT 174 174 N-linked (GlcNAc... ) (Potential).
FT CARBOHYD 174 174 N-linked (GlcNAc... ) (Potential).
FT FT 190 190 5 X 8 AA tandem repeats of P-H-G-G-W-G-
FT DOMAIN 44 84 Q.
FT FT 44 52 REPEAT
FT FT 53 60 REPEAT
FT FT 61 68 REPEAT
FT FT 69 76 REPEAT
FT FT 77 84 REPEAT
FT FT 241 241 NON_TER
FT SEQUENCE 241 AA; 26398 MW; E539D84E2B59DE CRC64;

QY 1 SNQNFVHDCVNITIKQHTVTTTGGKGFETDVKQMRVVEQMC 46
Db 163 SNQNFVHDCVNITIKQHTVTTTGGKGFETDVKQMRVVEQMC 208

RESULT 7
PRIO CERAE STANDARD; PRT; 245 AA.
AC P67988; P40250;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).
GN Name=PRNP;
OS Cercopithecus aethiops (Green monkey) (Grivet).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecinae; Cercopithecus.
OX NCBI_TaxID=9534;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95139066; PubMed=7837269;
RA Schatzl H.M., Da Costa M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells (By
CC similarity).
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "rods" (By similarity).
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By
CC similarity).
CC -1- DISEASE: PrP is found in high quantity in the brain of humans and
CC animals infected with the degenerative neurological diseases kuru,
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC transmissible mink encephalopathy (TME), etc.
CC -1- SIMILARITY: Belongs to the prion family.
CC -----
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CC -----
DR EMBL; U08291; AAC50080.1; -.
DR PIR; S53627; S53627.
DR HSPP; P23907; IG04.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prionoctapep; 5.
DR PRINTS; PR00341; PRION.
DR PROSITE; PS00291; PRION 1; 1.
DR PROSITE; PS00706; PRION 2; 1.
DR GlycoProtein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
FT SIGNAL 1 22 By similarity.
FT CHAIN 23 222 Major prion protein.
FT PROPEP 223 245 Removed in mature form (By similarity).
FT LIPID 222 222 GPI-anchor amidated serine (By
FT similarity).
FT FT 171 206 By similarity.
FT FT 173 173 N-linked (GlcNAc... ) (Potential).
FT CARBOHYD 173 173
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FT CARBOHYD 189 189 N-linked (GlcNAc... ) (Potential).
FT DOMAIN 51 83 4 X 8 AA tandem repeats of P-H-G-G-G-W-G-
FT REPEAT 51 59 1.
FT REPEAT 60 67 2.
FT REPEAT 68 75 3.
FT REPEAT 76 83 4.
SQ SEQUENCE 245 AA; 26885 MW; D582B58E2726C99A CRC64;

Query Match 100.0%; Score 244; DB 1; Length 245;
Best Local Similarity 100.0%; Pred. No. 1e-22;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNIITIKOHTVTTTGGNFETDVKMERVVEQNCI 46
Db 162 SNQNFVHDCVNIITIKOHTVTTTGGNFETDVKMERVVEQNCI 207

RESULT 8
PRIO CERDI STANDARD; PRT; 245 AA.
AC P67989; P40250;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).
GN Name=PRNP;
OS Cercopithecus diana (Diana monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheciidae;
OC Cercopitheciinae; Cercopithecus.
OX NCBI_TaxID=36224;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95139066; PubMed=7837269;
RA Schaezel H.M., Da Costa M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374 (1995).
RN [2]
RP ERRATUM.
RX PubMed=9020986;
RA Schaezel H.M., Da Costa M., Taylor L., Cohen F.E., Prusiner S.B.;
RL J. Mol. Biol. 265:257-257 (1997).
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells.
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "rods".
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and
CC animals infected with the degenerative neurological diseases kuru,
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC transmissible mink encephalopathy (TME), etc.
CC -!- SIMILARITY: Belongs to the prion family.
CC
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CC or send an email to license@isb-sib.ch).
CC
CC EMBL; U08292; AAC50081.1; -.
CC F01; S71045; S71045.
CC HSSP; P23907; 1G04.
CC InterPro; IPR000817; Prion.
CC Pfam; PF00377; Prion; 1.
CC Pfam; PF03991; Prion octapep; 5.
CC PRINTS; PR00341; PRION.
CC PROSITE; PS00291; PRION 1; 1.
CC PROSITE; PS00706; PRION 2; 1.
CC Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
```

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FT SIGNAL 1 22 By similarity.
FT CHAIN 23 222 Major prion protein.
FT PROPEP 223 245 Removed in mature form (By similarity).
FT LIPID 222 222 GPI-anchor amidated serine (By
FT similarity).
FT DISULFID 171 206 By similarity.
FT CARBOHYD 173 173 N-linked (GlcNAc... ) (Potential).
FT CARBOHYD 189 189 N-linked (GlcNAc... ) (Potential).
FT DOMAIN 51 83 4 X 8 AA tandem repeats of P-H-G-G-G-W-G-
FT REPEAT 51 59 1.
FT REPEAT 60 67 2.
FT REPEAT 68 75 3.
FT REPEAT 76 83 4.
SQ SEQUENCE 245 AA; 26885 MW; D582B58E2726C99A CRC64;

Query Match 100.0%; Score 244; DB 1; Length 245;
Best Local Similarity 100.0%; Pred. No. 1e-22;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNIITIKOHTVTTTGGNFETDVKMERVVEQNCI 46
Db 162 SNQNFVHDCVNIITIKOHTVTTTGGNFETDVKMERVVEQNCI 207

RESULT 9
PRIO CERMO STANDARD; PRT; 246 AA.
AC P61761; Q95172; Q95173;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
GN Name=PRNP;
OS Cercopithecus mona (Mona monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheciidae;
OC Cercopitheciinae; Cercopithecus.
OX NCBI_TaxID=36226;
RN [1]
RP SEQUENCE FROM N.A.
RA van der Kuyl A.C., Dekker J.T., Goudsmit J.;
RT "Evidence for an increased substitution rate of the hominoid prion
RT protein gene during the period of brain expansion.";
RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells.
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "rods".
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and
CC animals infected with the degenerative neurological diseases kuru,
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC transmissible mink encephalopathy (TME), etc.
CC -!- SIMILARITY: Belongs to the prion family.
CC
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CC or send an email to license@isb-sib.ch).
CC
CC EMBL; U75386; AAB50625.1; -.
CC HSSP; P23907; 1G04.
CC InterPro; IPR000817; Prion.
CC Pfam; PF00377; Prion; 1.
CC Pfam; PF03991; Prion octapep; 6.
CC PRINTS; PR00341; PRION.
CC PROSITE; PS00291; PRION 1; 1.
CC PROSITE; PS00706; PRION 2; 1.
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KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
 FT NON\_TER 1  
 FT SIGNAL <1 15 By similarity.  
 FT CHAIN 16 223 Major prion protein.  
 FT PROPEP 224 246 Removed in mature form (By similarity).  
 FT LIPID 223 223 GPI-anchor amidated serine (By similarity).  
 FT DISULFID 172 207 By similarity.  
 FT CARBOHYD 174 174 N-linked (GlcNAc... ) (Potential).  
 FT CARBOHYD 190 190 N-linked (GlcNAc... ) (Potential).  
 FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-W-G-Q.  
 FT REPEAT 44 52 1.  
 FT REPEAT 53 60 2.  
 FT REPEAT 61 68 3.  
 FT REPEAT 69 76 4.  
 FT REPEAT 77 84 5.  
 SQ SEQUENCE 246 AA; 26900 MW; 835D147CA2B4FDD3 CRC64;  
 Query Match 100.0%; Score 244; DB 1; Length 246;  
 Best Local Similarity 100.0%; Pred. No. 1e-22;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 SNQNNFVHDCVNITIKQHTVTTTGGKGFETETDVKMERVVEQMC 46  
 DB 163 SNQNNFVHDCVNITIKQHTVTTTGGKGFETETDVKMERVVEQMC 208  
 RESULT 10  
 PRIO\_CERNE STANDARD; PRT; 246 AA.  
 AC P61762; Q95172; Q95173;  
 DT 01-NOV-1997 (Rel. 35, Created)  
 DT 01-NOV-1997 (Rel. 35, Last sequence update)  
 DT 05-JUL-2004 (Rel. 44, Last annotation update)  
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).  
 GN Names:PRNP;  
 OS Cercopithecus neglectus (De Brazza's monkey).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;  
 OC Cercopithecinae; Cercopithecus.  
 OX NCBI\_TaxID=36227;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA van der Kuyl A.C., Dekker J.T., Goudsmit J.;  
 RT "Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion."  
 RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.  
 CC -I- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.  
 CC -I- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".  
 CC -I- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
 CC -I- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.  
 CC -I- SIMILARITY: Belongs to the prion family.  
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 CC EMBL; U75387; AAB50626.1; -.  
 DR HSSP; P23907; IG04.  
 DR InterPro; IPR000817; Prion.  
 DR Pfam; PF00377; Prion; 1.  
 DR Pfam; PF03991; Prion\_octapep; 6.

DR PRINTS; PR00341; PRION.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
 FT NON\_TER 1  
 FT SIGNAL <1 15 By similarity.  
 FT CHAIN 16 223 Major prion protein.  
 FT PROPEP 224 246 Removed in mature form (By similarity).  
 FT LIPID 223 223 GPI-anchor amidated serine (By similarity).  
 FT DISULFID 172 207 By similarity.  
 FT CARBOHYD 174 174 N-linked (GlcNAc... ) (Potential).  
 FT CARBOHYD 190 190 N-linked (GlcNAc... ) (Potential).  
 FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-W-G-Q.  
 FT REPEAT 44 52 1.  
 FT REPEAT 53 60 2.  
 FT REPEAT 61 68 3.  
 FT REPEAT 69 76 4.  
 FT REPEAT 77 84 5.  
 SQ SEQUENCE 246 AA; 26900 MW; 835D147CA2B4FDD3 CRC64;  
 Query Match 100.0%; Score 244; DB 1; Length 246;  
 Best Local Similarity 100.0%; Pred. No. 1e-22;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 SNQNNFVHDCVNITIKQHTVTTTGGKGFETETDVKMERVVEQMC 46  
 DB 163 SNQNNFVHDCVNITIKQHTVTTTGGKGFETETDVKMERVVEQMC 208  
 RESULT 11  
 PRIO\_CERTO STANDARD; PRT; 246 AA.  
 AC Q95176;  
 DT 01-NOV-1997 (Rel. 35, Created)  
 DT 01-NOV-1997 (Rel. 35, Last sequence update)  
 DT 05-JUL-2004 (Rel. 44, Last annotation update)  
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).  
 GN Names:PRNP;  
 OS Cercopithecus torquatus atys (Red-crowned mangabey) (Sooty mangabey).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;  
 OC Cercopithecinae; Cercopithecus.  
 OX NCBI\_TaxID=9531;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA van der Kuyl A.C., Dekker J.T., Goudsmit J.;  
 RT "Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion."  
 RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.  
 CC -I- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.  
 CC -I- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".  
 CC -I- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
 CC -I- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.  
 CC -I- SIMILARITY: Belongs to the prion family.  
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 CC EMBL; U75385; AAB50628.1; -.  
 DR HSSP; P23907; IG04.



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DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion octapep; 6.
DR PRINTS; PR00341; PRION
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
FT NON_TER 1
FT SIGNAL <1 15 By similarity.
FT CHAIN 16 223 Major prion protein.
FT PROPEP 224 246 Removed in mature form (By similarity).
FT LIPID 223 223 GPI-anchor amidated serine (By similarity).
FT DISULFID 172 207 By similarity.
FT CARBOHYD 174 174 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 190 190 N-linked (GlcNAc...) (Potential).
FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-G-W-G-Q.
FT REPEAT 44 52 1.
FT REPEAT 53 60 2.
FT REPEAT 61 68 3.
FT REPEAT 69 76 4.
FT REPEAT 77 84 5.
SQ SEQUENCE 246 AA; 26914 MW; F58679CBEC5ADCT CRC64;

Query Match 100.0%; Score 244; DB 1; Length 246;
Best Local Similarity 100.0%; Pred. No. 1e-22;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNIITIKOHTVTTTKGENFTETDVKKMERVVEQMCI 46
Db 163 SNQNFVHDCVNIITIKOHTVTTTKGENFTETDVKKMERVVEQMCI 208

RESULT 12
PRIO ERYPA
ID PRIO ERYPA STANDARD; PRT; 246 AA.
AC Q95174;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
GN Name=PRNP;
OS Erythrocybus patas (Red guenon) (Cercopithecus patas).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecinae; Erythrocebus.
OC NCBI_TaxID=9538;
RN [1]
RP SEQUENCE FROM N.A.
RA van der Kuyl A.C., Dekker J.T., Goudsmit J.;
RT "Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion.";
RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.
CC -!- SIMILARITY: Belongs to the prion family.
CC
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CC EMBL; U75388; AAB50627.1; --
DR HSP; P23907; IG04
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR PRINTS; PR00341; PRION octapep; 6.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
FT NON_TER 1
FT SIGNAL <1 15 By similarity.
FT CHAIN 16 223 Major prion protein.
FT PROPEP 224 246 Removed in mature form (By similarity).
FT LIPID 223 223 GPI-anchor amidated serine (By similarity).
FT DISULFID 172 207 By similarity.
FT CARBOHYD 174 174 N-linked (GlcNAc...) (Potential).
FT CARBOHYD 190 190 N-linked (GlcNAc...) (Potential).
FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-G-W-G-Q.
FT REPEAT 44 52 1.
FT REPEAT 53 60 2.
FT REPEAT 61 68 3.
FT REPEAT 69 76 4.
FT REPEAT 77 84 5.
SQ SEQUENCE 246 AA; D35D105BBEC53108 CRC64;

Query Match 100.0%; Score 244; DB 1; Length 246;
Best Local Similarity 100.0%; Pred. No. 1e-22;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNIITIKOHTVTTTKGENFTETDVKKMERVVEQMCI 46
Db 163 SNQNFVHDCVNIITIKOHTVTTTKGENFTETDVKKMERVVEQMCI 208

RESULT 13
PRIO CEBAP
ID PRIO CEBAP STANDARD; PRT; 252 AA.
AC P40249;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).
GN Name=PRNP;
OS Cebus apella (Brown-capped capuchin).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Cebinae; Cebus.
OC NCBI_TaxID=9515;
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE=95139066; PubMed=7837269;
RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.
CC -!- SIMILARITY: Belongs to the prion family.
CC
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 CC -----  
 CC

CC ENBL; U08295; AAC50084.1; -;  
 CC PIR; S53631; S53631.  
 CC HSP; P23907; IG04.  
 CC InterPro: IPR000817; Prion.  
 CC Pfam; PF00377; Prion; 1.  
 CC PRINTS; PR00341; Prion; 1.  
 CC PROSITE; PS00291; PRION\_1; 1.  
 CC PROSITE; PS00291; PRION\_1; 1.  
 CC PROSITE; PS00706; PRION\_2; 1.  
 CC Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
 CC SIGNAL 1 22 By similarity.  
 CC CHAIN 23 229 Major prion protein.  
 CC PROPEP 230 252 Removed in mature form (By similarity).  
 CC LIPID 229 229 GPI-anchor amidated serine (By similarity).  
 CC FT DISULFID 178 213 By similarity.  
 CC FT CARBOHYD 180 180 N-linked (GlcNAc.. ) (Potential).  
 CC FT CARBOHYD 196 196 N-linked (GlcNAc.. ) (Potential).  
 CC FT DOMAIN 51 90 5 X 8 AA tandem repeats of P-H-G-G-W-G-Q.  
 CC FT REPEAT 51 58 1.  
 CC FT REPEAT 59 66 2.  
 CC FT REPEAT 67 74 3.  
 CC FT REPEAT 75 82 4.  
 CC FT REPEAT 83 90 5.  
 CC SEQUENCE 252 AA; 27579 MW; A2DFCA0AD26D7821 CRC64;

Query Match 100.0%; Score 244; DB 1; Length 252;  
 Best Local Similarity 100.0%; Pred. No. 1.1e-22;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQNCI 46  
 |||||  
 Db 169 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQNCI 214

## RESULT 14

PRIO COLGU ID\_PRIO COLGU STANDARD; PRT; 253 AA.  
 AC P40251;  
 DT 01-FEB-1995 (Rel. 31, Created)  
 DT 01-FEB-1995 (Rel. 31, Last sequence update)  
 DT 05-JUL-2004 (Rel. 44, Last annotation update)  
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).  
 GN Name=PRNP;  
 OS Colobus guereza (Black-and-white colobus monkey).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea; Colobinae;  
 OC Colobus.  
 CC NCBI\_TaxID=33548;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=95139066; PubMed=7837269;  
 RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;  
 RT "Prion protein gene variation among primates."  
 RL J. Mol. Biol. 245:362-374 (1995).  
 RN [2]  
 RP SEQUENCE OF 8-253 FROM N.A.

RA van der Kuyl A.C., Dekker J.T., Goudemits J.;  
 RP "Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion."  
 RT Submitted (OCT-1996) to the EMBL/GenBank/DBJ databases.  
 CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.  
 CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".  
 CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
 CC -1- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome

CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
 CC transmissible mink encephalopathy (TME), etc.  
 CC -1- SIMILARITY: Belongs to the prion family.  
 CC -----  
 CC

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 CC -----  
 CC

CC ENBL; U08297; AAC50086.1; -;  
 CC ENBL; U75389; AAB50624.1; -;  
 CC PIR; S53618; S53618.  
 CC HSP; P23907; IG04.  
 CC InterPro: IPR000817; Prion.  
 CC Pfam; PF00377; Prion; 1.  
 CC PRINTS; PR00341; PRION.  
 CC PROSITE; PS00291; PRION\_1; 1.  
 CC PROSITE; PS00706; PRION\_2; 1.  
 CC Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
 CC SIGNAL 1 22 By similarity.  
 CC CHAIN 23 230 Major prion protein.  
 CC PROPEP 231 253 Removed in mature form (By similarity).  
 CC LIPID 230 230 GPI-anchor amidated serine (By similarity).  
 CC FT DISULFID 179 214 By similarity.  
 CC FT CARBOHYD 181 181 N-linked (GlcNAc.. ) (Potential).  
 CC FT CARBOHYD 197 197 N-linked (GlcNAc.. ) (Potential).  
 CC FT DOMAIN 51 91 5 X 8 AA tandem repeats of P-H-G-G-W-G-Q.  
 CC FT REPEAT 51 59 1.  
 CC FT REPEAT 60 67 2.  
 CC FT REPEAT 68 75 3.  
 CC FT REPEAT 76 83 4.  
 CC FT REPEAT 84 91 5.  
 CC SEQUENCE 253 AA; 27626 MW; 14B17477881F5316 CRC64;

Query Match 100.0%; Score 244; DB 1; Length 253;  
 Best Local Similarity 100.0%; Pred. No. 1.1e-22;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQNCI 46  
 |||||  
 Db 170 SNQNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVEQNCI 215

## RESULT 15

PRIO GORGO ID\_PRIO GORGO STANDARD; PRT; 253 AA.  
 AC P40252; Q28419;  
 DT 01-FEB-1995 (Rel. 31, Created)  
 DT 01-FEB-1995 (Rel. 31, Last sequence update)  
 DT 05-JUL-2004 (Rel. 44, Last annotation update)  
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).  
 GN Name=PRNP;  
 OS Gorilla gorilla gorilla (lowland gorilla).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Gorilla.  
 CC NCBI\_TaxID=9595;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=95139066; PubMed=7837269;  
 RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;  
 RT "Prion protein gene variation among primates."  
 RL J. Mol. Biol. 245:362-374 (1995).  
 RN [2]  
 RP SEQUENCE FROM N.A.

CC TISSUE=Blood;  
 CC -1- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome

RA Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;  
RT "Infectious amyloid precursor gene sequences in primates used for  
RL experimental transmission of human spongiform encephalopathy.";  
RC Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).  
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the  
CC host genome and is expressed both in normal and infected cells.  
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called  
CC "rods".  
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and  
CC animals infected with the degenerative neurological diseases kuru,  
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome  
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
CC transmissible mink encephalopathy (TME), etc.  
CC -!- SIMILARITY: Belongs to the prion family.  
CC -----  
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CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
DR EMBL; U08300; AAC50089.1; -;  
DR EMBL; U15166; AAA68633.1; -;  
DR PIR; I37032; I37032.  
DR PIR; S53614; S53614.  
DR HSSP; P04156; 114M.  
DR InterPro; IPR000817; Prion.  
DR Pfam; PF00377; Prion; 1.  
DR Pfam; PF03991; Prion octapep; 6.  
DR PRINTS; PR00341; PRION.  
DR PROSITE; PS00291; PRION 1; 1.  
DR PROSITE; PS00706; PRION 2; 1.  
KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
FT SIGNAL 1 22 By similarity.  
FT CHAIN 23 230 Major prion protein.  
FT PROPEP 231 253 Removed in mature form (By similarity).  
FT LIPID 230 230 GPI-anchor amidated serine (By  
FT similarity).  
FT DISULFID 179 214 By similarity.  
FT CARBOHYD 181 181 N-linked (GlcNAc...) (potential).  
FT CARBOHYD 197 197 N-linked (GlcNAc...) (potential).  
FT DOMAIN 51 91 5 X 8 AA tandem repeats of P-H-G-G-W-G-  
FT Q.  
FT REPEAT 51 59 1.  
FT REPEAT 60 67 2.  
FT REPEAT 68 75 3.  
FT REPEAT 76 83 4.  
FT REPEAT 84 91 5.  
FT CONFLICT 6 6 C -> Y (in Ref. 2).  
SQ SEQUENCE 253 AA; 27660 MW; E28F4C3FAABCA49E CRC64;  
Query Match 100.0%; Score 244; DB 1; Length 253;  
Best Local Similarity 100.0%; Pred. No. 1.1e-22;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 SNQNFVHDCVNIITKQHTVTITTKGENFTETDVKMERVVEQNCI 46  
Db 170 SNQNFVHDCVNIITKQHTVTITTKGENFTETDVKMERVVEQNCI 215

Search completed: July 26, 2005, 11:59:30  
Job time : 82 secs

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OM protein - protein search, using sw model

Run on: July 26, 2005, 11:38:22 ; Search time 91.5 Seconds  
(without alignments)  
194.437 Million cell updates/sec

Title: US-10-031-975-20\_COPY\_176\_221

Perfect score: 245

Sequence: 1 NQNNFVHDCVNITIKQHTVT.....NFTETDKMRRVVEQMVCVT 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database : A\_Geneseq\_16Dec04:\*

- 1: Geneseq1980s:\*
- 2: Geneseq1990s:\*
- 3: Geneseq2000s:\*
- 4: Geneseq2001s:\*
- 5: Geneseq2002s:\*
- 6: Geneseq2003as:\*
- 7: Geneseq2003bs:\*
- 8: Geneseq2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	245	100.0	124	5	ABG94340
2	245	100.0	124	5	ABG80652
3	245	100.0	124	7	ADD24200
4	245	100.0	208	3	AB07316
5	245	100.0	208	3	AB07327
6	245	100.0	208	5	ABG31904
7	245	100.0	208	7	ADJ66133
8	245	100.0	209	5	ABG31905
9	245	100.0	211	4	AB30801
10	245	100.0	225	6	ABR42793
11	245	100.0	226	7	ADB85240
12	245	100.0	254	2	AAR86714
13	245	100.0	254	2	AAW69659
14	245	100.0	254	2	AAW85900
15	245	100.0	254	2	AAV07996
16	245	100.0	254	4	AB72360
17	245	100.0	254	4	AB61772
18	245	100.0	254	4	AA82118
19	245	100.0	254	4	AA82111
20	245	100.0	254	4	AA84522
21	245	100.0	254	4	AA65852
22	245	100.0	254	5	AAW50888
23	245	100.0	254	5	ABP51786
24	245	100.0	254	5	ABG31906
25	245	100.0	254	5	ABB04427

## ALIGNMENTS

## RESULT 1

ABG94340  
ID ABG94340 standard; protein; 124 AA.

XX AC ABG94340;

DT 10-DEC-2002 (first entry)

XX Mouse mPrPt protein.

XX Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;

KW cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;

KW vaccine; infectious disease.

XX Mus sp.

XX WO200256905-A2.

XX 25-JUL-2002.

XX 21-JAN-2002; 2002WO-IB000166.

XX 19-JAN-2001; 2001US-0262379P.

PR 04-MAY-2001; 2001US-0288549P.

PR 05-OCT-2001; 2001US-0326998P.

PR 07-NOV-2001; 2001US-0331045P.

PA (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;

PI Plosssek C;

XX WPI; 2002-627351/67.

XX Molecular antigen array used in the production of vaccines for infectious diseases.

XX Disclosure; Page 438; 441pp; English.

CC This invention relates to a novel ordered and repetitive antigen array used in the production of vaccines for infectious diseases. The invention also discloses a composition comprising a non-natural molecular scaffold comprising a core particle selected from a core particle of a non-natural origin and a core particle of natural origin and an organiser comprising at least one first attachment site, where the organiser is connected to the core particle by at least one covalent bond. Also disclosed is an antigen or antigenic determinant with at least one second attachment site, where the antigen or antigenic determinant is amyloid beta peptide

CC (Abetal-42) or its fragment and where the second attachment site is  
 CC selected from an attachment site not naturally occurring with the antigen  
 CC or antigenic determinant and an attachment site naturally occurring with  
 CC the antigen or antigenic determinant, where the second attachment site is  
 CC capable of association through at least one non-peptide bond to the first  
 CC attachment site and where the antigen or antigenic determinant and the  
 CC scaffold interact through the association to form an ordered and  
 CC repetitive antigen array. The invention also comprises a coat protein  
 CC capable of forming a capsid which comprises mutant beta coat proteins  
 CC having an amino acid sequence selected from five amino acid sequences  
 CC fully defined in the specification. The compounds of the invention may  
 CC have antimicrobial, anti-allergic, immunomodulatory, cytostatic,  
 CC antiviral, antidiabetic, or hypoglycaemic activities and may be used in  
 CC immunisation and as a vaccine. The present sequence represents a protein  
 XX sequence used to create the compositions of the invention

SQ Sequence 124 AA;

Query Match 100.0%; Score 245; DB 5; Length 124;  
 Best Local Similarity 100.0%; Pred. No. 3.7e-24; Indels 0; Gaps 0;  
 Matches 46; Conservative 0; Mismatches 0;

OY 1 NQNNFVHDCVNITIKQHTVTTTGGENFTETDVKMMERVVEQMCVT 46  
 |||||  
 DB 51 NQNNFVHDCVNITIKQHTVTTTGGENFTETDVKMMERVVEQMCVT 96

RESULT 2

ID ABG80652  
 XX ABG80652 standard; protein; 124 AA.  
 AC ABG80652;  
 XX

29-NOV-2002 (first entry)

Mouse truncated prion protein with C terminal cysteine containing linker.

Molecular antigen array; vaccine; antigen; antimicrobial; mutant;  
 molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutein;  
 graft versus host disease; IGE-mediated allergic reaction; anaphylaxis;  
 adult respiratory distress syndrome; ARDS; Crohn's disease;  
 allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;  
 Grave's disease; systemic lupus erythematosus; osteoporosis;  
 inflammatory immune disease; myasthenia gravis; multiple sclerosis;  
 immunoproliferative disease lymphadenopathy; Alzheimer's disease;  
 angioimmunoproliferative lymphadenopathy; immunoblastic lymphadenopathy;  
 rheumatoid arthritis; diabetes; infectious disease; factor Xa;  
 enterokinase; cysteine-containing linker.

Mus sp.  
 OS Synthetic.  
 OS

WO200256907-A2.  
 XX

25-JUL-2002.  
 XX

21-JAN-2002; 2002WO-IB000168.  
 XX

19-JAN-2001; 2001US-0262379P.  
 PR

04-MAY-2001; 2001US-0288549P.  
 PR

05-OCT-2001; 2001US-0326998P.  
 PR

07-NOV-2001; 2001US-0331045P.  
 PR

(CYTO-) CYTOS BIOTECHNOLOGY AG.  
 PA (NOVS) NOVARTIS PHARMA AG.  
 PA (MAUR) MAURER P.  
 PA (LECH) LECHNER F.  
 PA (ORTM) ORTMANN R.  
 PA (LUEO) LUEOEND R.  
 PA (STAU) STAUFENBIEL M.  
 PA (FREY) FREY P.  
 XX

Maurer P, Lechner F, Ortman R, Lueoend R, Staufenbiel M, Frey P;

PI Renner WA, Bachmann M, Tissot A, Sebbel P, Piossek C;  
 XX WPI; 2002-636514/68.  
 DR

Molecular antigen array used in the production of vaccines for infectious  
 XX diseases.  
 PT

Example 7; Page 415; 418pp; English.  
 XX

The invention relates to a composition comprising: (a) a non-natural  
 CC molecular scaffold comprising: (i) a core particle selected from: (1) a  
 CC core particle of a non-natural origin; and (2) a core particle of natural  
 CC origin; and (ii) an organiser comprising at least one first attachment  
 CC site, where the organiser is connected to the core particle by at least  
 CC one covalent bond; (b) an antigen or antigenic determinant with at least  
 CC one second attachment site, where the antigen or antigenic determinant is  
 CC amyloid beta peptide (Abeta 1-42) or its fragment, and where the second  
 CC attachment site is selected from: (i) an attachment site not naturally  
 CC occurring with the antigen or antigenic determinant; and (ii) an  
 CC attachment site naturally occurring with the antigen or antigenic  
 CC determinant, where the second attachment site is capable of association  
 CC through at least one non-peptide bond to the first attachment site; and  
 CC where the antigen or antigenic determinant and the scaffold interact  
 CC through the association to form an ordered and repetitively occurring  
 CC array. Also included is a process for producing a non-naturally occurring  
 CC ordered and repetitive antigen array. The composition is used in  
 CC immunisation and as a vaccine for diseases such as influenza, graft  
 CC versus host disease, IGE-mediated allergic reactions, anaphylaxis, adult  
 CC respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,  
 CC acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease,  
 CC systemic lupus erythematosus, inflammatory immune diseases, myasthenia  
 CC gravis, immunoproliferative disease lymphadenopathy,  
 CC angioimmunoproliferative lymphadenopathy, immunoblastic lymphadenopathy,  
 CC rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease,  
 CC osteoporosis and infectious diseases. The present sequence is a modified  
 CC antigen for use in the array of the invention. The antigen is modified to  
 CC possess a cleavage site (enterokinase or factor Xa) and a Cysteine-  
 CC containing N- or C-terminal linker peptide which serves as the attachment  
 CC point to a virus like particle or bacterial protein (the scaffold  
 CC protein)

XX SQ Sequence 124 AA;

Query Match 100.0%; Score 245; DB 5; Length 124;  
 Best Local Similarity 100.0%; Pred. No. 3.7e-24; Indels 0; Gaps 0;  
 Matches 46; Conservative 0; Mismatches 0;

OY 1 NQNNFVHDCVNITIKQHTVTTTGGENFTETDVKMMERVVEQMCVT 46  
 |||||  
 DB 51 NQNNFVHDCVNITIKQHTVTTTGGENFTETDVKMMERVVEQMCVT 96

RESULT 3

ID ADD24200  
 XX ADD24200 standard; protein; 124 AA.  
 AC ADD24200;  
 XX

15-JAN-2004 (first entry)

mPrPt-EK-Fc\* cleaved protein sequence.

vaccine composition; virus-like particle; core particle;  
 KW first attachment site; antigen; antigenic determinant; prion protein;  
 KW PrP; PrP peptide; vaccine; neuroprotective; anti-inflammatory;  
 KW prion disease; Bovine Spongiform Encephalopathy; BSE;  
 KW Creutzfeldt-Jakob Disease; prion; mPrPt-EK-Fc\*.  
 XX Unidentified.  
 OS prion.  
 OS

WO2003059386-A2.  
 XX

```
PD 24-JUL-2003.
XX PF 17-JAN-2003; 2003WO-EP000460.
XX PR 18-JAN-2002; 2002US-00050902.
XX PR 21-JAN-2002; 2002WO-IB000166.
XX PR 08-JUL-2002; 2002US-0393725P.
XX PR 18-JUL-2002; 2002US-0396590P.
XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.
XX FI Bachmann M, Maurer P, Pelliccioli E, Renner WA;
XX WI; 2003-598483/56.
XX PT A vaccine composition for preventing or treating prion diseases (e.g.
XX FT Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-
XX FT phage) and at least one prion protein or peptide bound to the virus-like
XX FT particle.
XX PS Example 13; SEQ ID NO 93; 246pp; English.
XX CC This invention relates to a novel vaccine composition comprising a virus-
XX CC like or a core particle with at least one first attachment site and at
XX CC least one antigen or antigenic determinant that is a prion protein (PrP)
XX CC or its dimer, or a PrP peptide, the antigen or antigenic determinant
XX CC being bound to the virus-like or core particle. The vaccine of the
XX CC invention may have neuroprotective or antiinflammatory activity. The
XX CC composition is useful as a medicament or in manufacturing a medicament
XX CC for the treatment or prevention of prion diseases. The prion diseases may
XX CC include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob
XX CC Disease. The present sequence is the amino acid sequence of the cleaved
XX CC protein translated from a mouse prion protein (PrP) vector (mPrPt-EK-Fc*)
XX CC which was used during the exemplification of the invention.
XX SQ Sequence 124 AA;
Query Match 100.0%; Score 245; DB 7; Length 124;
Best Local Similarity 100.0%; Pred. No. 3.7e-24;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 NONNFVHDCVNITIKQHTVTTTGTGKGFNTETDVKMMERVVEQMCVT 46
Db 51 NONNFVHDCVNITIKQHTVTTTGTGKGFNTETDVKMMERVVEQMCVT 96
RESULT 4
AAB07316
XX ID AAB07316 standard; protein; 208 AA.
XX AC AAB07316;
XX DT 17-OCT-2000 (first entry)
XX DE Mouse prion protein sequence.
XX KW Mouse; prion protein; transmissible spongiform encephalopathy;
XX KW bovine spongiform encephalopathy; BSE diagnosis; TSE; PrP.
XX OS Mus sp.
XX FH Key Location/Qualifiers
XX FT Region 37..68
XX FT /note= "Repeat region consisting of tandem repeats of
XX FT Disulfide-bond 156..191
XX FT Modified-site 208
XX FT /note= "C-terminal phospho-inositol glycolipid membrane
XX FT anchor (-GPI)"
XX PN WO200029850-A1.
XX PR 25-MAY-2000.
XX PD 25-MAY-2000.

XX 27-OCT-1999; 99WO-FI000897.
XX PF 17-NOV-1998; 98FI-00002481.
XX PR (WALL-) WALLAC OY.
XX PA (BSR-) BSR OFFICE.
XX PI Hope J, Barnard GJR, Birkett CR;
XX WI; 2000-387880/33.
XX DR Novel immunoassay for prion protein, used for the determination of
XX FT transmissible spongiform encephalopathies in bovines.
XX PT Disclosure; Page 41-42; 50pp; English.
XX PS The present sequence is the mouse prion protein (PrP) sequence.
XX CC Conversion of the normal cellular form of PrP into an aggregated,
XX CC insoluble isoform is implicated in the pathogenesis of Transmissible
XX CC Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine
XX CC Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease (CJD)
XX CC and Gerstmann-Strausler-Sheinker syndrome (GSS). The concentration of
XX CC this protein in body fluid or tissue samples may be measured by an
XX CC of the present invention, in which a PrP epitope is captured by an
XX CC antibody, which is then detected. The presence of PrP indicates TSE. PrP
XX CC epitopes (AAB07320-807326) are derived from the protease resistant core
XX CC of PrP that is occluded when the PrP is in an aggregated state
XX SQ Sequence 208 AA;
Query Match 100.0%; Score 245; DB 3; Length 208;
Best Local Similarity 100.0%; Pred. No. 6.7e-24;
Matches 45; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 NONNFVHDCVNITIKQHTVTTTGTGKGFNTETDVKMMERVVEQMCVT 46
Db 148 NONNFVHDCVNITIKQHTVTTTGTGKGFNTETDVKMMERVVEQMCVT 193
RESULT 5
AAB07327
XX ID AAB07327 standard; protein; 208 AA.
XX AC AAB07327;
XX DT 17-OCT-2000 (first entry)
XX DE Mouse prion protein sequence.
XX KW Mouse; prion protein; transmissible spongiform encephalopathy;
XX KW bovine spongiform encephalopathy; TSE diagnosis; PrP.
XX OS Mus sp.
XX FH Key Location/Qualifiers
XX FT Region 37..68
XX FT /note= "Repeat region consisting of tandem repeats of
XX FT Disulfide-bond 156..191
XX FT Modified-site 208
XX FT /note= "C-terminal phospho-inositol glycolipid membrane
XX FT anchor (-GPI)"
XX PN WO200029849-A1.
XX PR 25-MAY-2000.
XX PD 25-MAY-2000.
XX PF 27-OCT-1999; 99WO-FI000896.
XX PR 17-NOV-1998; 98FI-00002480.
XX PA (WALL-) WALLAC OY.
```

PA (BBSR-) BBSRC OFFICE.  
 XX Hope J, Barnard GJR, Birkett CR;  
 PI WPI; 2000-399778/34.  
 DR  
 XX New immunoassay for prion protein, used for determination of  
 PT transmissible spongiform encephalopathies in mammals, comprises specific  
 PT capture antibody.  
 XX  
 XX Disclosure; Page 41-42; 50pp; English.  
 PS  
 XX The present sequence is the mouse prion protein (PrP) sequence.  
 CC Conversion of the normal cellular form of PrP into an aggregated,  
 CC insoluble isoform is implicated in the pathogenesis of Transmissible  
 CC Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine  
 CC Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease (CJD)  
 CC and Gerstmann-Strausler-Sheinker syndrome (GSS). The concentration of  
 CC this protein in body fluid or tissue samples may be measured by an assay  
 CC of the present invention, in which a PrP epitope is captured by an  
 CC antibody, which is then detected. The presence of PrP indicates TSE. PrP  
 CC epitopes (AAB07320-B07326) are derived from the protease resistant core  
 CC of PrP that is occluded when the PrP is in an aggregated state  
 XX  
 XX Sequence 208 AA;  
 SQ

Query Match 100.0%; Score 245; DB 3; Length 208;  
 Best Local Similarity 100.0%; Pred. No. 6.7e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NQNNFVHDCVNITIKOHTVTTTGGNFETTDVKMMERVVEQMCVT 46  
 DB 148 NQNNFVHDCVNITIKOHTVTTTGGNFETTDVKMMERVVEQMCVT 193

RESULT 6  
 ABG31904  
 ID ABG31904 standard; protein; 208 AA.  
 AC  
 XX  
 XX 05-NOV-2002 (first entry)  
 DT  
 XX Chimera-type prion protein #2.  
 DE  
 XX Prion; follicular dendritic cells; FDC; infection; blood preparation;  
 KW food; cosmetic; CJD; Creutzfeldt-Jacob disease.  
 KM  
 XX Synthetic.  
 OS  
 XX WO200261418-A1.  
 PN  
 XX  
 XX 08-AUG-2002.  
 PD  
 XX  
 XX 31-JAN-2002; 2002WO-JP000803.  
 PF  
 XX  
 XX 31-JAN-2001; 2001JP-00024279.  
 PR  
 XX (TOHO) UNIV TOHOKU.  
 PA  
 XX Kitamoto T, Miyoshi K, Mohri S;  
 PI  
 XX WPI; 2002-619277/66.  
 DR  
 XX Screening (non-)human prion disease infection factor based on abnormal  
 PT prion protein sedimentation in non-human follicular dendritic cells as  
 PT indication, applicable in safety test on e.g. drugs and cosmetics.  
 PT  
 XX Claim 9; Page 55-57; 69pp; Japanese.  
 PS  
 XX This invention relates to a novel method for screening human or non-  
 CC human prion disease infection factor in a sample by using abnormal prion  
 CC protein sedimentation in non-human follicular dendritic cells (FDC) as

CC indication. The method of the invention is useful for screening (non-) human prion disease infection factor, which is applicable in safety tests on drugs like blood preparations, foods and cosmetics, and for developing drugs for e.g. CJD, as well as for early diagnosis of Creutzfeldt-Jacob disease (CJD). The method of the invention is simple and quick. The present sequence represents a chimeric type prion related protein of the invention  
 CC  
 XX Sequence 208 AA;  
 SQ

Query Match 100.0%; Score 245; DB 5; Length 208;  
 Best Local Similarity 100.0%; Pred. No. 6.7e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NQNNFVHDCVNITIKOHTVTTTGGNFETTDVKMMERVVEQMCVT 46  
 DB 149 NQNNFVHDCVNITIKOHTVTTTGGNFETTDVKMMERVVEQMCVT 194

RESULT 7  
 ADJ66133  
 ID ADJ66133 standard; protein; 208 AA.  
 XX  
 AC ADJ66133;  
 XX  
 XX 06-MAY-2004 (first entry)  
 DT  
 XX Mouse prion protein, PrP.  
 DE  
 XX Prion protein; detection; mouse; PrP.  
 KW  
 XX Mus sp.  
 OS  
 XX JP2003130880-A.  
 PN  
 XX  
 XX 08-MAY-2003.  
 PD  
 XX  
 XX 29-OCT-2001; 2001JP-00330696.  
 PF  
 XX  
 XX 29-OCT-2001; 2001JP-00330696.  
 PR  
 XX (FJRE) FUJIREBIO KK.  
 PA  
 XX WPI; 2003-639503/61.  
 DR N-PSDB; ADJ66131.  
 XX  
 XX Reagent for detecting abnormal prion protein in sample, comprises denaturant treated antibody or its Fab fragment that specifically reacts with antigen in prion protein, immobilized on magnetic particle.  
 PT  
 XX Disclosure; SEQ ID NO 1; 9pp; Japanese.  
 PS  
 XX The present invention relates to a reagent (I) for detecting abnormal prion protein, comprising an antibody or its Fab fragment that specifically reacts with an antigen in the prion protein, immobilized on a magnetic particle, where the antibody or its fragment is treated with a denaturant. (I) enables highly-sensitive detection of abnormal prion protein in a sample, within a short time, and without performing electrophoresis and centrifugation procedures which is time-consuming. The present sequence is a mouse prion protein (PrP), used to illustrate the invention.  
 CC  
 XX Sequence 208 AA;  
 SQ

Query Match 100.0%; Score 245; DB 7; Length 208;  
 Best Local Similarity 100.0%; Pred. No. 6.7e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NQNNFVHDCVNITIKOHTVTTTGGNFETTDVKMMERVVEQMCVT 46  
 DB 148 NQNNFVHDCVNITIKOHTVTTTGGNFETTDVKMMERVVEQMCVT 193



RESULT 8  
 ABG31905  
 ID ABG31905 standard; protein; 209 AA.  
 XX  
 AC ABG31905;  
 XX  
 DT 05-NOV-2002 (first entry)  
 XX  
 DE HCHV type prion protein.  
 XX  
 KW Prion; follicular dendritic cells; FDC; infection; blood preparation;  
 KW food; cosmetic; CJD; Creutzfeldt-Jacob disease.  
 XX  
 OS Synthetic.  
 XX  
 PN WO200261418-A1.  
 XX  
 PD 08-AUG-2002.  
 XX  
 PF 31-JAN-2002; 2002WO-JP000803.  
 XX  
 PR 31-JAN-2001; 2001JP-00024279.  
 XX  
 FA (TOHO) UNIV TOHOKU.  
 XX  
 PI Kitamoto T, Miyoshi K, Mohri S;  
 XX  
 DR WPI; 2002-619277/66.  
 XX  
 PT Screening (non-)human prion disease infection factor based on abnormal  
 PT prion protein sedimentation in non-human follicular dendritic cells as  
 PT indication, applicable in safety test on e.g. drugs and cosmetics.  
 XX  
 PS Claim 9; Page 57-58; 69pp; Japanese.  
 XX  
 CC This invention relates to a novel method for screening human or non-  
 CC human prion disease infection factor in a sample by using abnormal prion  
 CC protein sedimentation in non-human follicular dendritic cells (FDC) as  
 CC indication. The method of the invention is useful for screening (non-)  
 CC human prion disease infection factor, which is applicable in safety tests  
 CC on drugs like blood preparations, foods and cosmetics, and for developing  
 CC drugs for e.g. CJD, as well as for early diagnosis of Creutzfeldt-Jacob  
 CC disease (CJD). The method of the invention is simple and quick. The  
 CC present sequence represents a Chv type prion related protein of the  
 CC invention  
 XX  
 SQ Sequence 209 AA;  
 Query Match 100.0%; Score 245; DB 5; Length 209;  
 Best Local Similarity 100.0%; Pred. No. 6.7e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 NQNFVHDCVNITIKQHTVTITTKGENFTETDVKMERVVQMCVT 46  
 Db 149 NQNFVHDCVNITIKQHTVTITTKGENFTETDVKMERVVQMCVT 194  
 RESULT 9  
 AAB30801  
 ID AAB30801 standard; protein; 211 AA.  
 XX  
 AC AAB30801;  
 XX  
 DT 02-APR-2001 (first entry)  
 XX  
 DE Amino acid sequence of a mouse prion protein.  
 XX  
 KW SCHAG; self-coalesce; higher-order aggregate; amyloidogenic domain;  
 KW aggregation; fibril; phenotypic alteration; gene therapy;  
 KW disease resistance; plant pigmentation; prion disease.  
 XX  
 OS Mus sp.  
 XX  
 PN WO200075324-A2.  
 XX  
 PD 14-DEC-2000.  
 XX  
 PF 09-JUN-2000; 2000WO-US015876.  
 XX  
 PR 09-JUN-1999; 99US-0138833P.  
 XX  
 PA (ARCH-) ARCH DEV CORP.  
 XX  
 PI Lindquist S, Li L, Ma J, Liu J, Sondheimer N, Scheibel T;  
 XX  
 DR WPI; 2001-061723/07.  
 XX  
 DR N-PSDB; AAC86686.  
 XX  
 PT New nucleic acid encoding chimeric proteins with self-assembly  
 PT properties, useful e.g. for diagnosis and treatment of prion diseases,  
 PT also related aggregates, fibrils and polymers.  
 XX  
 PS Claim 11; Page 137-138; 188pp; English.  
 XX  
 CC The present sequence represents a prion protein. The specification  
 CC describes chimeric polypeptides, which comprise at least one SCHAG (self-  
 CC coalesces into higher-order aggregates) amino acid sequence fused in  
 CC frame with a polypeptide of interest (which is other than a marker  
 CC protein, a glutathione-S-transferase or a staphylococcal nuclear  
 CC protein). The specification also describes chimeric polypeptides that  
 CC comprises an amyloidogenic domain that causes aggregation into fibrils.  
 CC The chimeric polypeptides are used to prepare polymers with multiple  
 CC reactivities, e.g. derivatised with enzymes, or specific binding  
 CC partners, and useful e.g. for performing multi-step chemical reactions.  
 CC They can be used to create an inducible, or stable phenotypic alteration in  
 CC a cell, e.g. for gene therapy, protein production, imparting disease  
 CC resistance to plants, altering plant pigmentation and for diagnosis and  
 CC treatment of prion diseases  
 XX  
 SQ Sequence 211 AA;  
 Query Match 100.0%; Score 245; DB 4; Length 211;  
 Best Local Similarity 100.0%; Pred. No. 6.8e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 Qy 1 NQNFVHDCVNITIKQHTVTITTKGENFTETDVKMERVVQMCVT 46  
 Db 150 NQNFVHDCVNITIKQHTVTITTKGENFTETDVKMERVVQMCVT 195  
 RESULT 10  
 ABR42793  
 ID ABR42793 standard; protein; 225 AA.  
 XX  
 AC ABR42793;  
 XX  
 DT 08-SEP-2003 (first entry)  
 XX  
 DE Rat prion protein.  
 XX  
 KW Rat; prion protein; prionosis; neurotropic; neuroprotective; immunogen;  
 KW vaccine.  
 XX  
 OS Rattus sp.  
 XX  
 PN WO2003045128-A2.  
 XX  
 PD 05-JUN-2003.  
 XX  
 PF 21-NOV-2002; 2002WO-US037634.  
 XX  
 PR 21-NOV-2001; 2001US-0331801P.  
 XX  
 PA (UNYNY) UNIV NEW YORK STATE.  
 XX  
 PI Frangione B, Wisniewski T, Sigurdsson EM;

XX WPI; 2003-505145/47.  
 XX New synthetic immunogenic but non-deposit forming peptides, useful for  
 PT inducing an immune response to prions, amyloids, amylin or amylin  
 PT fibrils, particularly for treating e.g. Alzheimer's, scrapie or  
 PT Creutzfeldt-Jacob disease.  
 XX Disclosure; Page 228-229; 265pp; English.  
 XX The present sequence is the amino acid sequence of rat prion protein. The  
 CC invention provides a synthetic immunogenic but non-deposit-forming  
 CC polypeptide that is homologous to human (see ABR42789) or bovine (see  
 CC ABR42798) prion protein. Such peptides, alone or conjugated to an  
 CC immunostimulant, are used to induce an immune response to prion, and  
 CC immunizing compositions comprising the peptides are used in a claimed  
 CC method for inducing an immune response to hpp and prion deposits.  
 CC Antibodies directed against the peptides can be used in passive  
 CC immunization  
 XX Sequence 225 AA;  
 SQ Query Match 100.0%; Score 245; DB 6; Length 225;  
 Best Local Similarity 100.0%; Pred. No. 7.3e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 NONNFVHDCVNITIKQHTVTTTGGENFTETDVQKMERVVQMCVT 46  
 DB 143 NONNFVHDCVNITIKQHTVTTTGGENFTETDVQKMERVVQMCVT 188  
 RESULT 11  
 ADB85240  
 ID ADB85240 standard; protein; 226 AA.  
 XX AC ADB85240;  
 XX 04-DEC-2003 (first entry)  
 XX Rat prion-related protein SEQ ID NO:121.  
 XX rat; streptozocin; kinase; phosphatase; ion channel protein; receptor;  
 DE transporter; G-protein coupled receptor; GPCR; DNA-binding proteins;  
 KW protease; enzyme; analgesic; gene therapy; pain; diabetes.  
 XX Rattus norvegicus.  
 XX EPI284297-A2.  
 XX 19-FEB-2003.  
 XX 26-JUL-2002; 2002EP-00255228.  
 XX 27-JUL-2001; 2001GB-00018354.  
 XX 07-FEB-2002; 2002GB-00002880.  
 XX (WARN ) WARNER LAMBERT CO.  
 XX Brookabank RA, Dixon AK, Lee K, Pinnock RD;  
 XX WPI; 2003-364994/35.  
 XX N-PSDB; ADB85241.  
 XX Use of gene sequence that is down-regulated in response to streptozocin-  
 PT induced diabetes, vector, host cell, animal, polypeptide and antibody, in  
 PT screening of compounds for treating or diagnosing pain.  
 XX Disclosure; Page 190; 256pp; English.  
 XX The invention relates to a novel isolated gene sequence that is down-  
 CC regulated in the spinal cord in response to streptozocin-induced  
 CC diabetes, or comprising, hybridizing or having at least 80% sequence  
 CC identity to a sequence whose expression products are kinases,

CC phosphatases, ion channel proteins, receptors, transporters, G-protein  
 CC coupled receptor proteins, DNA-binding proteins, proteases or enzymes,  
 CC given in the specification. A gene of the invention has analgesic  
 CC activity, and may have a use in gene therapy. The gene sequences, vector,  
 CC host cell, animal, polypeptide and antibody are useful for screening of  
 CC compounds for diagnosing or treating pain. The kits are useful for  
 CC simultaneous, separate or sequential detecting and/or quantifying down-  
 CC regulation of a gene sequence in the spinal cord of a mammal in response  
 CC to streptozocin-induced diabetes. The compound or pharmaceutical  
 CC composition is useful as a medicament for treating or diagnosing pain.  
 CC The present sequence represents a protein encoded by a gene of the  
 CC invention.  
 XX Sequence 226 AA;  
 SQ Query Match 100.0%; Score 245; DB 7; Length 226;  
 Best Local Similarity 100.0%; Pred. No. 7.4e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 NONNFVHDCVNITIKQHTVTTTGGENFTETDVQKMERVVQMCVT 46  
 DB 143 NONNFVHDCVNITIKQHTVTTTGGENFTETDVQKMERVVQMCVT 188  
 RESULT 12  
 AAR86714  
 ID AAR86714 standard; protein; 254 AA.  
 XX AC AAR86714;  
 XX 15-OCT-1996 (first entry)  
 XX Mouse prion protein, MoPrP.  
 DE Chimeric gene; chimeric prion; transgenic animal; diagnosis;  
 KW spongiform encephalopathy; PrP; central nervous system; CNS;  
 KW Creutzfeld-Jacob disease; CJD; BSE.  
 XX Mus musculus.  
 XX WO9531466-A1.  
 XX 23-NOV-1995.  
 XX 10-APR-1995; 95WO-US004426.  
 XX 13-MAY-1994; 94US-00242188.  
 XX (REGC ) UNIV CALIFORNIA.  
 XX Prusiner SB, Scott MR, Telling G;  
 XX WPI; 1996-010868/01.  
 XX Chimeric prion protein gene - for formation of a transgenic animal  
 PT susceptible to prion infection by prion(s) normally specific for a  
 PT different species.  
 XX Disclosure; Fig 3; 65pp; English.  
 XX Pathogenic prions in a sample can be detected by injecting the sample to  
 CC be tested into a transgenic mouse. The mouse genome includes a chimeric  
 CC PrP gene in which the gene includes a portion of a gene of the animal  
 CC (e.g. human) in danger of infection from prions in the sample. Preferred  
 CC transgenic mice express a chimeric prion protein (PrP) in which a segment  
 CC of this mouse PrP, MoPrP, is replaced with the corresponding human PrP  
 CC sequence. The chimeric PrP, designated MHu2MP-P, differs from this MoPrP  
 CC by 9 AA between residues 96 and 167  
 XX Sequence 254 AA;  
 SQ Query Match 100.0%; Score 245; DB 2; Length 254;  
 Best Local Similarity 100.0%; Pred. No. 8.4e-24;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 NONNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVEQMCVT 46  
 |||||  
 Db 170 NONNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVEQMCVT 215  
 |||||

## RESULT 13

AAW69659  
 ID AAW69659 standard; protein; 254 AA.

XX AC AAW69659;

XX XX 25-MAR-2003 (revised)

XX DT 19-OCT-1998 (first entry)

XX XX Mouse prion protein MoPrP.

XX DE Mouse; prion protein; PrP; transgenic animal; artificial gene;

XX KW Creutzfeldt Jakob disease; CJD; neurodegenerative disease; human.

XX XX Mus sp.

XX OS US5792901-A.

XX PN 11-AUG-1998.

XX PD 30-JUL-1996; 96US-00692892.

XX PF 13-MAY-1994; 94US-00242188.

XX PR 31-JUL-1995; 95US-00509261.

XX PR 31-AUG-1995; 95US-00521992.

XX XX (REGC ) UNIV CALIFORNIA.

XX PI Scott MR, Telling GC, Prusiner SB;

XX XX WPI; 1998-456207/39.

XX DR Transgenic mouse with altered PrP gene - for detecting disease-causing

XX PT prions.

XX PS Example 8; Fig 3; 37pp; English.

XX XX A transgenic mouse has been developed which comprises a genome in which

XX CC both alleles of an endogenous PrP (prion protein) gene of the mouse are

XX CC ablated, the genome containing operatively inserted all exogenous non-

XX CC mouse PrP gene. The mouse is susceptible to infection with prions which

XX CC generally only infect a genetically diverse mammal due to the presence of

XX CC the exogenous PrP gene and ablated endogenous PrP gene. It exhibits

XX CC symptoms of prion disease within 200 days or less after inoculation with

XX CC prions which generally only infect a genetically diverse mammal. Also

XX CC described in the present invention are: (A) a method of producing the

XX CC transgenic mouse; and (B) determining the presence of infectious prions

XX CC in a sample obtained from a bovine. The transgenic mouse is used to

XX CC detect for Creutzfeldt Jakob disease (CJD) a fatal neurodegenerative

XX CC disease of humans caused by prions. The present sequence represents mouse

XX CC prion protein (MoPrP), used in an example from the present invention.

XX CC (Updated on 25-MAR-2003 to correct PF field.)

XX XX Sequence 254 AA;

XX SQ

Query Match 100.0%; Score 245; DB 2; Length 254;

Best Local Similarity 100.0%; Pred. No. 8.4e-24;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 NONNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVEQMCVT 46  
 |||||  
 Db 170 NONNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVEQMCVT 215  
 |||||

## RESULT 14

AAW85900

ID AAW85900 standard; peptide; 254 AA.

XX AC AAW85900;

XX DT 12-FEB-1999 (first entry)

XX XX Mouse prion protein (PrP) sequence.

XX DE PrP; PrP(Sc); scrapie; isoform; antibody; prion; CJD; screening;

XX KW Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;

XX KW cosmetic; therapeutic; mouse.

XX OS Mus sp.

XX PN US5846533-A.

XX PD 08-DEC-1998.

XX XX 13-SEP-1996; 96US-007113939.

XX PR 14-SEP-1995; 95US-00528104.

XX XX (REGC ) UNIV CALIFORNIA.

XX PA (SCRI ) SCRIPPS RES INST.

XX PI Prusiner SB, Williamson RA, Burton DR;

XX XX WPI; 1999-058996/05.

XX DR Antibody specific for scrapie isoform of prion protein - useful for

XX PT diagnosis and therapy.

XX PS Disclosure; Col 39-42; 58pp; English.

XX XX This represents a mouse prion protein (PrP) sequence. The invention

XX CC relates to an antibody that is capable of binding to native PrP(Sc), the

XX CC scrapie isoform of PrP. The antibody is produced by a method that

XX CC comprises synthesising a library of antibodies on phages, contacting the

XX CC phages with a composition containing PrP proteins, isolating phages that

XX CC bind to native PrP(Sc) in situ, obtaining an antibody from the phages,

XX CC and optionally analysing the phages to determine a nucleic acid sequence

XX CC encoding an amino acid sequence to which the native PrP(Sc) binds. The

XX CC antibody is used to detect disease-associated PrP, especially in

XX CC Creutzfeldt-Jakob disease (CJD) and distinguish it from normal PrP. They

XX CC can also be used to neutralise the infectivity of PrP(Sc). Assays using

XX CC the antibodies can be used to screen for disease-associated PrP in

XX CC pharmaceutical products, foods and cosmetics or for therapeutic purposes

XX SQ Sequence 254 AA;

XX SQ

Query Match 100.0%; Score 245; DB 2; Length 254;  
 Best Local Similarity 100.0%; Pred. No. 8.4e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 NONNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVEQMCVT 46  
 |||||  
 Db 170 NONNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVEQMCVT 215  
 |||||

## RESULT 15

AAV07996

ID AAV07996 standard; protein; 254 AA.

XX AC AAV07996;

XX DT 08-JUL-1999 (first entry)

XX XX Murine prion protein.

XX DE Prion protein; PrP; human; polyclonal antiserum; immunoassay; detection;

XX KW bovine; murine.

XX OS Mus sp.

XX DE19745443-A1.  
XX 22-APR-1999.  
XX 15-OCT-1997; 97DE-01045443.  
XX 15-OCT-1997; 97DE-01045443.  
XX (HERZ/) HERZOG-MESMER A.  
XX Mesmer AH, Kiselev OI, Scheller A;  
XX WPI; 1999-255775/22.  
XX  
XX Diagnostic polyclonal antiserum specific for prion protein - obtained by  
PT immunisation with metal-containing polypeptide.  
XX  
XX Claim 3; Fig 1; 12pp; German.  
XX  
XX This invention describes a novel process for producing a polyclonal  
CC antiserum against a human or animal prion protein (PrP) which can be used  
CC in immunoassays for detecting PrP's. The method comprises (a) selecting a  
CC polypeptide that has a length of at least 10 amino acids and has an amino  
CC acid sequence at least 70% homologous to that of human, bovine or murine  
CC PrP in a region of at least 10 consecutive amino acids (b) binding a  
CC metal to the polypeptide by reaction with a metal compound and (c)  
CC injecting the metal-containing polypeptide into a host animal, optionally  
CC together with adjuvants, to induce production of a polyclonal antiserum  
XX  
XX SQ Sequence 254 AA;  
  
Query Match 100.0%; Score 245; DB 2; Length 254;  
Best Local Similarity 100.0%; Pred. No. 8.4e-24;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
  
Qy 1 NONNFVHDCVNIITIKOHTVTTTGGENFTETDVKOMERVVEQMCVT 46  
Db 170 NONNFVHDCVNIITIKOHTVTTTGGENFTETDVKOMERVVEQMCVT 215

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Job time : 93.75 secs

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OM protein - protein search, using sw model

Run on: July 26, 2005, 11:44:13 ; Search time 23.5 Seconds  
(without alignments)  
146.122 Million cell updates/sec

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Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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5: /cgn2\_6/ptodata/1/iaa/PTCUS\_COMB.pep.\*  
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	245	100.0	254	1	US-08-242-188-1
2	245	100.0	254	1	US-08-509-261A-1
3	245	100.0	254	1	US-08-660-626-7
4	245	100.0	254	1	US-08-692-892-1
5	245	100.0	254	2	US-08-713-939A-1
6	245	100.0	254	2	US-08-868-162A-21
7	245	100.0	254	3	US-09-031-168-7
8	245	100.0	254	3	US-09-128-450-19
9	245	100.0	254	3	US-09-128-450-28
10	245	100.0	254	3	US-09-036-579-1
11	245	100.0	254	3	US-09-823-494-19
12	245	100.0	254	3	US-09-823-494-28
13	245	100.0	254	3	US-09-550-374-1
14	245	100.0	254	4	US-09-431-887-20
15	245	100.0	254	4	US-09-431-887-21
16	245	100.0	254	4	US-09-431-887-23
17	245	100.0	254	4	US-09-627-218B-10
18	245	100.0	254	4	US-09-943-906-1
19	245	100.0	254	4	US-09-669-516C-7
20	244	99.6	142	1	US-08-556-823-10
21	244	99.6	245	4	US-09-431-887-5
22	244	99.6	245	4	US-09-431-887-15
23	244	99.6	252	4	US-09-431-887-13
24	244	99.6	252	4	US-09-431-887-17
25	244	99.6	253	1	US-08-242-188-2
26	244	99.6	253	1	US-08-509-261A-2
27	244	99.6	253	1	US-08-660-626-8

28	244	99.6	253	1	US-08-692-892-2	Sequence 2, Appli
29	244	99.6	253	2	US-08-713-939A-2	Sequence 2, Appli
30	244	99.6	253	2	US-08-868-162A-22	Sequence 22, Appli
31	244	99.6	253	3	US-09-031-168-8	Sequence 8, Appli
32	244	99.6	253	3	US-09-128-450-20	Sequence 20, Appli
33	244	99.6	253	3	US-09-036-579-2	Sequence 2, Appli
34	244	99.6	253	3	US-09-823-494-20	Sequence 20, Appli
35	244	99.6	253	3	US-09-550-374-2	Sequence 1, Appli
36	244	99.6	253	4	US-09-431-887-1	Sequence 3, Appli
37	244	99.6	253	4	US-09-431-887-3	Sequence 4, Appli
38	244	99.6	253	4	US-09-431-887-4	Sequence 7, Appli
39	244	99.6	253	4	US-09-431-887-7	Sequence 9, Appli
40	244	99.6	253	4	US-09-431-887-9	Sequence 10, Appli
41	244	99.6	253	4	US-09-431-887-10	Sequence 11, Appli
42	244	99.6	253	4	US-09-431-887-11	Sequence 12, Appli
43	244	99.6	253	4	US-09-431-887-12	Sequence 14, Appli
44	244	99.6	253	4	US-09-431-887-14	Sequence 16, Appli
45	244	99.6	253	4	US-09-431-887-16	

ALIGNMENTS

RESULT 1  
US-08-242-188-1  
; Sequence 1, Application US/08242188  
; Patent No. 5565186  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: Scott, Michael R.  
; APPLICANT: Telling, Glenn  
; TITLE OF INVENTION: METHOD OF DETECTING PRIONS IN A SAMPLE  
; TITLE OF INVENTION: AND TRANSGENIC ANIMAL USED FOR SAME  
; NUMBER OF SEQUENCES: 4  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Karl Bosicevic  
; STREET: 2200 Sand Hill Road  
; CITY: Menlo Park  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 94025  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/242,188  
; FILING DATE: 13-MAY-1994  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Bosicevic, Karl  
; REGISTRATION NUMBER: 28,807  
; REFERENCE/DOCKET NUMBER: 06510/014001  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (415) 854-5277  
; TELEFAX: (415) 854-0875  
; INFORMATION FOR SEQ ID NO: 1:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 254 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: Peptide  
; ORIGINAL SOURCE:  
; ORGANISM: MOUSE PRION PROTEIN, MoPrp  
US-08-242-188-1

Query Match 100.0%; Score 245; DB 1; Length 254;  
Best Local Similarity 100.0%; Pred. No. 7.8e-26;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 NQNFVHDCVNITIKQHTVT...TGTGKFTDVKMMERVVEQMCVT 46

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Db 170 NQNNFVHDCVNITIKQHTVTTTKGENFTETDVKKMERVVQMCVT 215
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RESULT 2
US-08-509-261A-1
; Sequence 1, Application US/08509261A
; Patent No. 5763244
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Scott, Michael R.
; APPLICANT: Telling, Glenn
; TITLE OF INVENTION: Method of Detecting Prions
; TITLE OF INVENTION: In a Sample and Transgenic Animal Used fore
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bozicevic & Reed, LLP
; STREET: 285 Hamilton Avenue, Suite 200
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94301
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/509,261A
; FILING DATE: 31-JUL-1995
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 6510-030001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-327-3400
; TELEFAX: 650 327-3231
; TELEX:
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 254 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-08-509-261A-1

Query Match 100.0%; Score 245; DB 1; Length 254;
Best Local Similarity 100.0%; Pred. No. 7.8e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNNFVHDCVNITIKQHTVTTTKGENFTETDVKKMERVVQMCVT 46
Db 170 NQNNFVHDCVNITIKQHTVTTTKGENFTETDVKKMERVVQMCVT 215
|||||
RESULT 3
US-08-660-626-7
; Sequence 7, Application US/08660626
; Patent No. 5789655
; GENERAL INFORMATION:
; APPLICANT: Stanley B. Prusiner
; APPLICANT: Glenn C. Telling
; APPLICANT: Fred E. Cohen
; APPLICANT: Michael R. Scott
; TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING
; TITLE OF INVENTION: EPITOPE-TAGGED PROTEINS
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson
; STREET: 2200 Sand Hill Road, Suite 100
; CITY: Menlo Park
; STATE: California
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/692,892
; FILING DATE: 30-JULY-1996
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/056001
; TELECOMMUNICATION INFORMATION:
```

TELEPHONE: (415) 322-5070  
TELEFAX: (415) 854-0875  
INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 254 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
ORIGINAL SOURCE:  
ORGANISM: MOUSE PRION PROTEIN, MoPrP  
US-08-692-892-1

Query Match 100.0%; Score 245; DB 1; Length 254;  
Best Local Similarity 100.0%; Pred. No. 7.8e-26;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKQHTVTTTGGKGFNTETDVKMMERVVEQMCVT 46  
Db 170 NONNFVHDCVNITIKQHTVTTTGGKGFNTETDVKMMERVVEQMCVT 215

## RESULT 5

US-08-713-939A-1  
Sequence 1, Application US/08713939A  
Patent No. 5846533

GENERAL INFORMATION:  
APPLICANT: Prusiner, Stanley B.  
APPLICANT: Williamson, R. Anthony  
APPLICANT: Burton, Dennis R.  
TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP  
NUMBER OF SEQUENCES: 86  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Fish & Richardson P.C.  
STREET: 2200 Sand Hill Road  
CITY: Menlo Park  
STATE: CA  
COUNTRY: U.S.A.  
ZIP: 94025

COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FastSeq Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/713,939A  
FILING DATE: 13-SEP-1996  
CLASSIFICATION: 436  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER:  
FILING DATE:  
ATTORNEY/AGENT INFORMATION:  
NAME: Bozicevic, Karl  
REGISTRATION NUMBER: 28,807  
REFERENCE/DOCKET NUMBER: 06510/059001  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 415-854-5277  
TELEFAX: 415-854-0875  
TELEX:

INFORMATION FOR SEQ ID NO: 1:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 254 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
US-08-713-939A-1

Query Match 100.0%; Score 245; DB 2; Length 254;  
Best Local Similarity 100.0%; Pred. No. 7.8e-26;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKQHTVTTTGGKGFNTETDVKMMERVVEQMCVT 46

Db 170 NONNFVHDCVNITIKQHTVTTTGGKGFNTETDVKMMERVVEQMCVT 215

## RESULT 6

US-08-868-162A-21  
Sequence 21, Application US/08868162A  
Patent No. 5962669

GENERAL INFORMATION:  
APPLICANT: Prusiner, Stanley  
APPLICANT: Cohen, Fred  
APPLICANT: James, Thomas  
APPLICANT: Kaneko, Kiyotoshi  
TITLE OF INVENTION: Prion Protein Modulator Factor  
NUMBER OF SEQUENCES: 24  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Bozicevic & Reed, LLP  
STREET: 285 Hamilton Avenue, Suite 200  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94301

COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FastSeq for Windows Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/868,162A  
FILING DATE: 03-JUN-1997  
CLASSIFICATION: 536  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER:  
FILING DATE:  
ATTORNEY/AGENT INFORMATION:  
NAME: Bozicevic, Karl

REGISTRATION NUMBER: 28,807  
REFERENCE/DOCKET NUMBER: 6510-083001  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 650-327-3400  
TELEFAX: 650 327-3231  
TELEX:  
INFORMATION FOR SEQ ID NO: 21:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 254 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
ORIGINAL SOURCE:  
ORGANISM: MOUSE PRION PROTEIN, MoPrP  
US-08-868-162A-21

Query Match 100.0%; Score 245; DB 2; Length 254;  
Best Local Similarity 100.0%; Pred. No. 7.8e-26;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKQHTVTTTGGKGFNTETDVKMMERVVEQMCVT 46  
Db 170 NONNFVHDCVNITIKQHTVTTTGGKGFNTETDVKMMERVVEQMCVT 215

## RESULT 7

US-09-031-168-7  
Sequence 7, Application US/09031168  
Patent No. 6150583

GENERAL INFORMATION:  
APPLICANT: Stanley B. Prusiner  
APPLICANT: Glenn C. Telling  
APPLICANT: Fred E. Cohen  
APPLICANT: Michael R. Scott  
TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING

;; TITLE OF INVENTION: EPIOTOPE-TAGGED PROTEINS  
;; NUMBER OF SEQUENCES: 13  
;; CORRESPONDENCE ADDRESS:  
;; ADDRESSEE: Fish & Richardson  
;; STREET: 2200 Sand Hill Road, Suite 100  
;; CITY: Menlo Park  
;; STATE: California  
;; COUNTRY: USA  
;; ZIP: 94025  
;; COMPUTER READABLE FORM:  
;; MEDIUM TYPE: Floppy disk  
;; COMPUTER: IBM PC compatible  
;; OPERATING SYSTEM: PC-DOS/MS-DOS  
;; SOFTWARE: Asclii  
;; CURRENT APPLICATION DATA:  
;; APPLICATION NUMBER: US/09/031,168  
;; FILING DATE:  
;; CLASSIFICATION:  
;; PRIOR APPLICATION DATA:  
;; APPLICATION NUMBER: 08/660,626  
;; FILING DATE:  
;; ATTORNEY/AGENT INFORMATION:  
;; NAME: Valeta Gregg  
;; REGISTRATION NUMBER: 35,127  
;; REFERENCE/DOCKET NUMBER: 07532/003001  
;; TELECOMMUNICATION INFORMATION:  
;; TELEPHONE: (415) 322-5070  
;; TELEFAX: (415) 854-0875  
;; INFORMATION FOR SEQ ID NO: 7:  
;; SEQUENCE CHARACTERISTICS:  
;; LENGTH: 254 amino acids  
;; TYPE: amino acid  
;; STRANDEDNESS: single  
;; TOPOLOGY: linear  
;; MOLECULE TYPE: peptide  
;; ORIGINAL SOURCE:  
;; ORGANISM: MOUSE PRION PROTEIN, MoPrp  
;;  
US-09-031-168-7

Query Match 100.0%; Score 245; DB 3; Length 254;  
Best Local Similarity 100.0%; Pred. No. 7.8e-26;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKOHTVTTTNGENFTETDVKMMRVVVEQMCVT 46  
Db 170 NONNFVHDCVNITIKOHTVTTTNGENFTETDVKMMRVVVEQMCVT 215

RESULT 8  
US-09-128-450-19  
; Sequence 19, Application US/09128450  
; Patent No. 6211149  
; GENERAL INFORMATION:  
; APPLICANT: Chesebro, Bruce W  
; APPLICANT: Caughey, Byron W  
; APPLICANT: Chabry, Joelle  
; APPLICANT: Priola, Subette  
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion  
; FILE REFERENCE: 50121  
; CURRENT APPLICATION NUMBER: US/09/128,450  
; CURRENT FILING DATE: 1998-08-03  
; NUMBER OF SEQ ID NOS: 29  
; SOFTWARE: Patentin Ver. 2.0  
; SEQ ID NO 19  
; LENGTH: 254  
; TYPE: PRT  
; ORGANISM: Mus musculus  
; US-09-128-450-19

Query Match 100.0%; Score 245; DB 3; Length 254;  
Best Local Similarity 100.0%; Pred. No. 7.8e-26;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKOHTVTTTNGENFTETDVKMMRVVVEQMCVT 46  
Db 170 NONNFVHDCVNITIKOHTVTTTNGENFTETDVKMMRVVVEQMCVT 215

RESULT 9  
US-09-128-450-28  
; Sequence 28, Application US/09128450  
; Patent No. 6211149  
; GENERAL INFORMATION:  
; APPLICANT: Chesebro, Bruce W  
; APPLICANT: Caughey, Byron W  
; APPLICANT: Chabry, Joelle  
; APPLICANT: Priola, Subette  
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion  
; FILE REFERENCE: 50121  
; CURRENT APPLICATION NUMBER: US/09/128,450  
; CURRENT FILING DATE: 1998-08-03  
; NUMBER OF SEQ ID NOS: 29  
; SOFTWARE: Patentin Ver. 2.0  
; SEQ ID NO 28  
; LENGTH: 254  
; TYPE: PRT  
; ORGANISM: Mus musculus  
; US-09-128-450-28

Query Match 100.0%; Score 245; DB 3; Length 254;  
Best Local Similarity 100.0%; Pred. No. 7.8e-26;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKOHTVTTTNGENFTETDVKMMRVVVEQMCVT 46  
Db 170 NONNFVHDCVNITIKOHTVTTTNGENFTETDVKMMRVVVEQMCVT 215

RESULT 10  
US-09-036-579-1  
; Sequence 1, Application US/09036579  
; Patent No. 6290954  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: Williamson, R. Anthony  
; APPLICANT: Burton, Dennis R.  
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP  
; NUMBER OF SEQUENCES: 86  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson P.C.  
; STREET: 2200 Sand Hill Road  
; CITY: Menlo Park  
; STATE: CA  
; COUNTRY: U.S.A.  
; ZIP: 94025  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette  
; COMPUTER: IBM Compatible  
; OPERATING SYSTEM: DOS  
; SOFTWARE: FastSeq Version 2.0  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/036,579  
; FILING DATE:  
; CLASSIFICATION:  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/713,939  
; FILING DATE: 13-SEP-1996  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Bozicevic, Karl  
; REGISTRATION NUMBER: 28,807  
; REFERENCE/DOCKET NUMBER: 06510/059001  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 415-854-5277  
; TELEFAX: 415-854-0875



```
;
;
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 254 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-09-036-579-1

Query Match      100.0%; Score 245; DB 3; Length 254;
Best Local Similarity 100.0%; Pred. No. 7.8e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  NONNFVHDCVNITIKOHTVTTTNGENFTETDVKKMERVVVEQMCVT 46
Db      170 NONNFVHDCVNITIKOHTVTTTNGENFTETDVKKMERVVVEQMCVT 215

RESULT 11
US-09-823-494-19
; Sequence 19, Application US/09823494
; Patent No. 6355610
; GENERAL INFORMATION:
; APPLICANT: Chesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; TITLE OF INVENTION: Protein
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/823,494
; CURRENT FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: Patent In Ver. 2.0
; SEQ ID NO 19
; LENGTH: 254
; TYPE: PRT
; ORGANISM: Mus musculus
US-09-823-494-19

Query Match      100.0%; Score 245; DB 3; Length 254;
Best Local Similarity 100.0%; Pred. No. 7.8e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  NONNFVHDCVNITIKOHTVTTTNGENFTETDVKKMERVVVEQMCVT 46
Db      170 NONNFVHDCVNITIKOHTVTTTNGENFTETDVKKMERVVVEQMCVT 215

RESULT 12
US-09-823-494-28
; Sequence 28, Application US/09823494
; Patent No. 6355610
; GENERAL INFORMATION:
; APPLICANT: Chesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; TITLE OF INVENTION: Protein
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/823,494
; CURRENT FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: Patent In Ver. 2.0
; SEQ ID NO 28
; LENGTH: 254
; TYPE: PRT
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;
;
; ORGANISM: Mus musculus
US-09-823-494-28

Query Match      100.0%; Score 245; DB 3; Length 254;
Best Local Similarity 100.0%; Pred. No. 7.8e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  NONNFVHDCVNITIKOHTVTTTNGENFTETDVKKMERVVVEQMCVT 46
Db      170 NONNFVHDCVNITIKOHTVTTTNGENFTETDVKKMERVVVEQMCVT 215

RESULT 13
US-09-550-374-1
; Sequence 1, Application US/09550374
; Patent No. 6372214
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Williamson, R. Anthony
; APPLICANT: Burton, Dennis R.
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: U.S.A.
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq Version 2.0
; CURRENT APPLICATION DATA: US/09/550,374
; APPLICATION NUMBER: US/09/550,374
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/036,579
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/059001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-854-5277
; TELEFAX: 415-854-0875
; TELEX:
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 254 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-09-550-374-1

Query Match      100.0%; Score 245; DB 3; Length 254;
Best Local Similarity 100.0%; Pred. No. 7.8e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  NONNFVHDCVNITIKOHTVTTTNGENFTETDVKKMERVVVEQMCVT 46
Db      170 NONNFVHDCVNITIKOHTVTTTNGENFTETDVKKMERVVVEQMCVT 215

RESULT 14
US-09-431-887-20
; Sequence 20, Application US/09431887
; Patent No. 6534036
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
```

; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE  
; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF PRION DISEASE  
; FILE REFERENCE: ICOT/P21952  
; CURRENT APPLICATION NUMBER: US/09/431.887  
; PRIOR FILING DATE: 1999-11-02  
; PRIOR APPLICATION NUMBER: GB 9824091.4  
; PRIOR FILING DATE: 1999-11-04  
; NUMBER OF SEQ ID NOS: 37  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 20  
; LENGTH: 254  
; TYPE: PRT  
; ORGANISM: Mus sp.  
US-09-431-887-20

Query Match 100.0%; Score 245; DB 4; Length 254;  
Best Local Similarity 100.0%; Pred. No. 7.8e-26;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKQHTVTTTNGENFTETDVQMERVVVEQMCVT 46  
Db 170 NONNFVHDCVNITIKQHTVTTTNGENFTETDVQMERVVVEQMCVT 215

## RESULT 15

US-09-431-887-21  
; Sequence 21, Application US/09431887  
; Patent No. 6534036

## GENERAL INFORMATION:

; APPLICANT: D-Gen Limited

; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE  
; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF PRION DISEASE

; FILE REFERENCE: ICOT/P21952

; CURRENT APPLICATION NUMBER: US/09/431.887

; PRIOR FILING DATE: 1999-11-02

; PRIOR APPLICATION NUMBER: GB 9824091.4

; PRIOR FILING DATE: 1999-11-04

; NUMBER OF SEQ ID NOS: 37

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 21

; LENGTH: 254

; TYPE: PRT

; ORGANISM: Mus sp.

US-09-431-887-21

Query Match 100.0%; Score 245; DB 4; Length 254;  
Best Local Similarity 100.0%; Pred. No. 7.8e-26;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKQHTVTTTNGENFTETDVQMERVVVEQMCVT 46  
Db 170 NONNFVHDCVNITIKQHTVTTTNGENFTETDVQMERVVVEQMCVT 215

Search completed: July 26, 2005, 12:02:24

Job time : 24.5 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 26, 2005, 11:48:04 ; Search time 80.75 Seconds  
(without alignments)

221.593 Million cell updates/sec

Title: US-10-031-975-20\_COPY\_176\_221

Perfect score: 245

Sequence: 1 NONNFVHDCVNITIKQHTVT.....NFTETDKMVRVVEQMCVT 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1741741 seqs, 388992284 residues

Total number of hits satisfying chosen parameters: 1741741

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database : Published Applications AA:\*

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17: /cgn2\_6/ptodata/2/pubpaa/US10E\_PUBCOMB. pep.\*

18: /cgn2\_6/ptodata/2/pubpaa/US10 NEW PUB. pep.\*

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21: /cgn2\_6/ptodata/2/pubpaa/US60 NEW PUB. pep.\*

22: /cgn2\_6/ptodata/2/pubpaa/US60\_PUBCOMB. pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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2	245	100.0	124	14	US-10-050-898-324
3	245	100.0	124	15	US-10-346-190-93
4	245	100.0	164	9	US-09-745-003-12
5	245	100.0	209	16	US-10-470-848-6
6	245	100.0	209	16	US-10-470-848-7
7	245	100.0	225	14	US-10-301-488A-25
8	245	100.0	225	15	US-10-301-448-25
9	245	100.0	226	14	US-10-205-194-121
10	245	100.0	226	17	US-10-949-880-8
11	245	100.0	254	9	US-09-823-494-19

Sequence 28, Appli  
Sequence 1, Appli  
Sequence 5, Appli  
Sequence 6, Appli  
Sequence 7, Appli  
Sequence 8, Appli  
Sequence 10, Appli  
Sequence 20, Appli  
Sequence 21, Appli  
Sequence 23, Appli  
Sequence 24, Appli  
Sequence 6, Appli  
Sequence 7, Appli  
Sequence 9, Appli  
Sequence 87, Appli  
Sequence 1, Appli  
Sequence 2, Appli  
Sequence 24, Appli  
Sequence 9, Appli  
Sequence 14, Appli  
Sequence 7, Appli  
Sequence 2, Appli  
Sequence 5, Appli  
Sequence 323, App  
Sequence 323, App  
Sequence 92, Appli  
Sequence 2, Appli  
Sequence 348, App  
Sequence 348, App  
Sequence 89, Appli  
Sequence 1, Appli  
Sequence 10, Appli

254 9 US-09-823-494-28  
254 9 US-09-943-906-1  
254 13 US-10-106-574-5  
254 13 US-10-106-574-6  
254 13 US-10-106-574-7  
254 13 US-10-106-574-8  
254 14 US-10-355-780-10  
254 14 US-10-304-630-20  
254 14 US-10-304-630-21  
254 14 US-10-304-630-23  
254 14 US-10-301-488A-24  
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254 15 US-10-410-907A-7  
254 15 US-10-410-907A-9  
254 15 US-10-346-190-87  
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254 15 US-10-438-628-2  
254 15 US-10-301-448-24  
254 16 US-10-728-246-14  
254 17 US-10-949-880-7  
254 17 US-10-475-558-1  
254 17 US-10-917-646-2  
254 17 US-10-917-646-7  
254 16 US-10-470-848-5  
254 14 US-10-050-902-323  
254 14 US-10-050-898-323  
254 15 US-10-346-190-92  
254 13 US-10-115-984-2  
254 117 14 US-10-050-902-348  
254 117 15 US-10-050-898-348  
254 117 15 US-10-346-190-89  
254 141 16 US-10-612-356A-1  
254 162 9 US-09-745-003-10

#### ALIGNMENTS

RESULT 1

US-10-050-902-324

Sequence 324, Application US/10050902

Publication No. US20030175290A1

GENERAL INFORMATION:

APPLICANT: Renner, Wolfgang A.

APPLICANT: Bachmann, Martin

APPLICANT: Tissot, Alain

APPLICANT: Maurer, Patrick

APPLICANT: Lechner, Franziska

APPLICANT: Sebbel, Peter

APPLICANT: Piossek, Christine

TITLE OF INVENTION: Molecular Antigen Array

FILE REFERENCE: 1700.0190004

CURRENT APPLICATION NUMBER: US/10/050,902

CURRENT FILING DATE: 2002-01-18

PRIOR APPLICATION NUMBER: US 60/262,379

PRIOR FILING DATE: 2001-01-19

PRIOR APPLICATION NUMBER: US 60/288,549

PRIOR FILING DATE: 2001-05-04

PRIOR APPLICATION NUMBER: US 60/326,998

PRIOR FILING DATE: 2001-10-05

PRIOR APPLICATION NUMBER: US 60/331,045

PRIOR FILING DATE: 2001-11-07

NUMBER OF SEQ ID NOS: 350

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 324

LENGTH: 124

TYPE: PRT

ORGANISM: Artificial Sequence

FEATURE:

OTHER INFORMATION: mPrPt construct

US-10-050-902-324

Query Match 100.0%; Score 245; DB 14; Length 124;  
Best Local Similarity 100.0%; Pred. No. 3.7e-24;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVVEQMCVT 46  
Db 51 NQNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVVEQMCVT 96

## RESULT 2

US-10-050-898-324

Sequence 324, Application US/10050898

Publication No. US2003017571A1

GENERAL INFORMATION: mPrPt

APPLICANT: Renner, Wolfgang A.

APPLICANT: Bachmann, Martin

APPLICANT: Tissot, Alain

APPLICANT: Maurer, Patrick

APPLICANT: Lechner, Franziska

APPLICANT: Seibel, Peter

APPLICANT: Plosssek, Christine

APPLICANT: Ortmann, Rainer

APPLICANT: Luond, Rainer

APPLICANT: Staufenbiel, Matthias

APPLICANT: Frey, Peter

TITLE OF INVENTION: Molecular Antigen Array

FILE REFERENCE: 1700.0190005

CURRENT APPLICATION NUMBER: US/10/050,898

CURRENT FILING DATE: 2002-01-18

PRIOR APPLICATION NUMBER: US 60/262,379

PRIOR FILING DATE: 2001-01-19

PRIOR APPLICATION NUMBER: US 60/288,549

PRIOR FILING DATE: 2001-05-04

PRIOR APPLICATION NUMBER: US 60/326,998

PRIOR FILING DATE: 2001-10-05

PRIOR APPLICATION NUMBER: US 60/331,045

PRIOR FILING DATE: 2001-11-07

NUMBER OF SEQ ID NOS: 350

SOFTWARE: PatentIn Ver. 2.1

SEQ ID NO 324

LENGTH: 124

TYPE: PrT

ORGANISM: Artificial Sequence

FEATURE: mPrPt

OTHER INFORMATION: Protein sequence of mPrPt

US-10-050-898-324

Query Match 100.0%; Score 245; DB 14; Length 124;  
Best Local Similarity 100.0%; Pred. No. 3.7e-24;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVVEQMCVT 46  
Db 51 NQNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVVEQMCVT 96

## RESULT 3

US-10-346-190-93

Sequence 93, Application US/10346190

Publication No. US20030219459A1

GENERAL INFORMATION: mPrPt

APPLICANT: Bachmann, Martin

APPLICANT: Maurer, Patrick

APPLICANT: Pelliccioli, Erica

APPLICANT: Renner, Wolfgang A.

TITLE OF INVENTION: Prion Protein Carrier-Conjugates

FILE REFERENCE: 1700.0290003

CURRENT APPLICATION NUMBER: US/10/346,190

CURRENT FILING DATE: 2003-01-17

PRIOR APPLICATION NUMBER: 60/396,590

PRIOR FILING DATE: 2002-07-18

PRIOR APPLICATION NUMBER: 60/393,725

PRIOR FILING DATE: 2002-07-08

PRIOR APPLICATION NUMBER: 60/389,898  
PRIOR FILING DATE: 2002-06-20  
PRIOR APPLICATION NUMBER: PCT/IB02/00166  
PRIOR FILING DATE: 2002-01-21  
PRIOR APPLICATION NUMBER: 10/050,902  
PRIOR FILING DATE: 2002-01-18  
NUMBER OF SEQ ID NOS: 164  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 93  
LENGTH: 124  
TYPE: PrT  
ORGANISM: Artificial Sequence  
FEATURE: mPrPt  
OTHER INFORMATION: mPrPt  
US-10-346-190-93

Query Match 100.0%; Score 245; DB 15; Length 124;  
Best Local Similarity 100.0%; Pred. No. 3.7e-24;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVVEQMCVT 46  
Db 51 NQNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVVEQMCVT 96

## RESULT 4

US-09-745-003-12

Sequence 12, Application US/09745003

Patent No. US20020042122A1

GENERAL INFORMATION:

APPLICANT: Bazan, Fernando J

TITLE OF INVENTION: Human Proteins; Related Reagents

FILE REFERENCE: PrP2

CURRENT APPLICATION NUMBER: US/09/745,003

CURRENT FILING DATE: 2000-12-20

NUMBER OF SEQ ID NOS: 13

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 12

LENGTH: 164

TYPE: PrT

ORGANISM: rodent

US-09-745-003-12

Query Match 100.0%; Score 245; DB 9; Length 164;  
Best Local Similarity 100.0%; Pred. No. 5.1e-24;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVVEQMCVT 46  
Db 80 NQNFVHDCVNITIKQHTVTTTGTGKGFETDVKMERVVVEQMCVT 125

## RESULT 5

US-10-470-848-6

Sequence 6, Application US/10470848

Publication No. US20040137421A1

GENERAL INFORMATION:

APPLICANT: President of Tohoku University

TITLE OF INVENTION: Method of Screening for Infection Factor of Prion Disease

FILE REFERENCE: PH-1224-PCT

CURRENT APPLICATION NUMBER: US/10/470,848

CURRENT FILING DATE: 2003-07-31

PRIOR APPLICATION NUMBER: JP 2001-24279

PRIOR FILING DATE: 2001-01-31

NUMBER OF SEQ ID NOS: 10

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 6

LENGTH: 209

TYPE: PrT

ORGANISM: Artificial Sequence

FEATURE:

OTHER INFORMATION: Description of Artificial Sequence:ChM-type prion protein

US-10-470-848-6

**Qy** 1 NQNNFVHDCVNITIKOHTVTITTKGENFTETDVKMMRVVEQMCVT 46  
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**Db** 143 NQNNFVHDCVNITIKOHTVTITTKGENFTETDVKMMRVVEQMCVT 188

RESULT 10  
US-10-949-880-8

; Sequence 8, Application US/10949880  
; Publication No. US20030048582A1

## ; GENERAL INFORMATION:

; APPLICANT: Stichting Instituut voor Dierhouderij en Diergezon  
; APPLICANT: Schreuder, Bram E.C.  
; APPLICANT: Keulen van, Lucius J.M.  
; APPLICANT: Vromans, Maria E.W.  
; APPLICANT: Langeveld, Johannes P.M.  
; APPLICANT: Smits, Marinus A.

; TITLE OF INVENTION: Method for detection of prion diseases

; FILE REFERENCE: 2183-3809us

; CURRENT APPLICATION NUMBER: US/10/949,880

; CURRENT FILING DATE: 2004-09-24

; PRIOR FILING DATE: 1999-05-20

; PRIOR FILING DATE: 1997-04-02

; PRIOR FILING DATE: 1996-04-03

; NUMBER OF SEQ ID NOS: 8

; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 8

; LENGTH: 226

; TYPE: PRT

; ORGANISM: Rattus rattus

US-10-949-880-8

Query Match 100.0%; Score 245; DB 17; Length 226;

Best Local Similarity 100.0%; Pred. No. 7.6e-24;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVVEQMCVT 46

Db 143 NONNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVVEQMCVT 188

## RESULT 11

US-09-823-494-19

; Sequence 19, Application US/09823494

; Publication No. US20010041790A1

## ; GENERAL INFORMATION:

; APPLICANT: Chesebro, Bruce W

; APPLICANT: Caughey, Byron W

; APPLICANT: Chabry, Joelle

; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion

; FILE REFERENCE: 50121

; CURRENT APPLICATION NUMBER: US/09/823,494

; CURRENT FILING DATE: 2001-03-30

; PRIOR FILING DATE: 1998-08-03

; NUMBER OF SEQ ID NOS: 29

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 19

; LENGTH: 254

; TYPE: PRT

; ORGANISM: Mus musculus

US-09-823-494-19

Query Match 100.0%; Score 245; DB 9; Length 254;

Best Local Similarity 100.0%; Pred. No. 8.7e-24;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVVEQMCVT 46

Db 170 NONNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVVEQMCVT 215

## RESULT 12

US-09-823-494-28

; Sequence 28, Application US/09823494

; Publication No. US20010041790A1

## ; GENERAL INFORMATION:

; APPLICANT: Chesebro, Bruce W

; APPLICANT: Caughey, Byron W

; APPLICANT: Chabry, Joelle

; APPLICANT: Priola, Susette

; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion

; FILE REFERENCE: 50121

; CURRENT APPLICATION NUMBER: US/09/823,494

; CURRENT FILING DATE: 2001-03-30

; PRIOR FILING DATE: 1998-08-03

; NUMBER OF SEQ ID NOS: 29

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 28

; LENGTH: 254

; TYPE: PRT

; ORGANISM: Mus musculus

US-09-823-494-28

Query Match 100.0%; Score 245; DB 9; Length 254;

Best Local Similarity 100.0%; Pred. No. 8.7e-24;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVVEQMCVT 46

Db 170 NONNFVHDCVNITIKQHTVTTTNGENFTETDVKMERVVVEQMCVT 215

## RESULT 13

US-09-943-906-1

; Sequence 1, Application US/09943906

; Patent No. US20020150571A1

## ; GENERAL INFORMATION:

; APPLICANT: Prusiner, Stanley B.

; APPLICANT: Williamson, R. Anthony

; APPLICANT: Burton, Dennis R.

; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP

; NUMBER OF SEQUENCES: 86

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Fish &amp; Richardson P.C.

; STREET: 2200 Sand Hill Road

; CITY: Menlo Park

; STATE: CA

; COUNTRY: U.S.A.

; ZIP: 94025

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: DOS

; SOFTWARE: FastSeq Version 2.0

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/943,906

; FILING DATE: 30-Aug-2001

; CLASSIFICATION: &lt;Unknown&gt;

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 09/550,374

; FILING DATE: &lt;Unknown&gt;

; ATTORNEY/AGENT INFORMATION:

; NAME: Bozicevic, Karl

; REGISTRATION NUMBER: 28,807

; REFERENCE/DOCKET NUMBER: 06510/059001

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 415-854-5277

; TELEFAX: 415-854-0875

; TELEX: &lt;Unknown&gt;

; INFORMATION FOR SEQ ID NO: 1:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 254 amino acids

; TYPE: amino acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: peptide

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/ SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-943-906-1
Query Match      100.0%; Score 245; DB 9; Length 254;
Best Local Similarity 100.0%; Pred. No. 8.7e-24;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  NONNFVHDCVNITIKQHTVTTTGGNFETETDVKQMERVVVEQMCVT 46
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Db      170 NONNFVHDCVNITIKQHTVTTTGGNFETETDVKQMERVVVEQMCVT 215

RESULT 14
US-10-106-574-5
; Sequence 5, Application US/10106574
; Publication No. US20020164335A1
; GENERAL INFORMATION:
; APPLICANT: Harris, David A.
; APPLICANT: Stewart, Richard S.
; TITLE OF INVENTION: Compositions and Methods for the Study and Diagnosis of Prion Dis
; FILE REFERENCE: 09789280.0003
; CURRENT APPLICATION NUMBER: US/10/106,574
; CURRENT FILING DATE: 2002-03-26
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 254
; TYPE: PRT
; ORGANISM: Murinae gen. sp.
US-10-106-574-5

Query Match      100.0%; Score 245; DB 13; Length 254;
Best Local Similarity 100.0%; Pred. No. 8.7e-24;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  NONNFVHDCVNITIKQHTVTTTGGNFETETDVKQMERVVVEQMCVT 46
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Db      170 NONNFVHDCVNITIKQHTVTTTGGNFETETDVKQMERVVVEQMCVT 215

RESULT 15
US-10-106-574-6
; Sequence 6, Application US/10106574
; Publication No. US20020164335A1
; GENERAL INFORMATION:
; APPLICANT: Harris, David A.
; APPLICANT: Stewart, Richard S.
; TITLE OF INVENTION: Compositions and Methods for the Study and Diagnosis of Prion Dis
; FILE REFERENCE: 09789280.0003
; CURRENT APPLICATION NUMBER: US/10/106,574
; CURRENT FILING DATE: 2002-03-26
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 254
; TYPE: PRT
; ORGANISM: Murinae gen. sp.
US-10-106-574-6

Query Match      100.0%; Score 245; DB 13; Length 254;
Best Local Similarity 100.0%; Pred. No. 8.7e-24;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1  NONNFVHDCVNITIKQHTVTTTGGNFETETDVKQMERVVVEQMCVT 46
      |||||||
Db      170 NONNFVHDCVNITIKQHTVTTTGGNFETETDVKQMERVVVEQMCVT 215
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Search completed: July 26, 2005, 12:07:53  
Job time : 81.75 secs

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GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 26, 2005, 11:43:08 ; Search time 16.75 Seconds  
(without alignments)  
264.237 Million cell updates/sec

Title: US-10-031-975-20\_COPY\_176\_221  
Perfect score: 245  
Sequence: 1 NONNFVHDCVNITIKQHTVT.....NFTETDVKMMERVVEQMCVT 46

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues  
Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000  
Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : PIR\_79:.\*  
1: Pir1.\*  
2: Pir2.\*  
3: Pir3.\*  
4: Pir4.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	245	100.0	226	2 A53892	prion-related prot
2	245	100.0	254	2 B34759	prion protein - go
3	245	100.0	254	2 A34759	prion protein - ch
4	245	100.0	254	2 A23544	major prion protei
5	244	99.6	232	2 S71041	major prion protei
6	244	99.6	241	2 S71048	major prion protei
7	244	99.6	241	2 S71056	major prion protei
8	244	99.6	245	2 S71045	major prion protei
9	244	99.6	253	1 U0HU	major prion protei
10	244	99.6	253	2 I84423	major prion protei
11	244	99.6	253	2 S71055	major prion protei
12	244	99.6	253	2 I37032	major prion protei
13	243	99.2	252	2 I61848	major prion protei
14	242	98.8	264	2 S37137	prion protein - gr
15	239	97.6	245	2 S33627	major prion protei
16	239	97.6	252	2 S53634	major prion protei
17	239	97.6	252	2 S53631	major prion protei
18	239	97.6	253	2 S53624	major prion protei
19	239	97.6	253	2 S53623	major prion protei
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21	239	97.6	253	2 S53625	major prion protei
22	239	97.6	253	2 S53635	prion protein - si
23	239	97.6	253	2 S53614	major prion protei
24	239	97.6	253	2 I61847	major prion protei
25	239	97.6	253	2 S53616	major prion protei
26	239	97.6	253	2 S53618	major prion protei
27	239	97.6	253	2 S53619	major prion protei
28	239	97.6	256	2 JU0268	major prion protei
29	239	97.6	264	2 A54330	major prion protei

prion protein - go  
major prion protei  
major prion protei  
major prion protei  
major prion PrP-Sc  
major prion PrP27-  
major prion protei  
major prion protei  
prion protein - ra  
prion protein homo  
major prion protei  
prion protein - ch  
probable ribose/ga  
conserved hypothet  
tryptophan-trNA li  
hypothetical prote

ALIGNMENTS

RESULT 1

A53892  
prion-related protein - rat (fragment)  
C;Species: Rattus norvegicus (Norway rat)  
C;Date: 07-Oct-1994 #sequence\_revision 07-Oct-1994 #text\_change 09-Jul-2004  
C;Accession: A53892  
R;Liao, Y.C.; Tokes, Z.; Lim, E.; Lackey, A.; Woo, C.H.; Button, J.D.; Clawson, G.A.  
Lab. Invest. 57, 370-374, 1987  
A;Title: Cloning of rat "prion-related protein" cDNA.  
A;Reference number: A53892; MUID:88037055; PMID:2889848  
A;Accession: A53892  
A;Status: preliminary  
A;Molecule type: mRNA  
A;Residues: 1-226 <L1A>  
A;Cross-references: UNIPROT:P13852; GB:M20313; NID:g206391; PIDN:AAA41947.1; PID:g206392  
C;Superfamily: major prion protein

Query Match 100.0%; Score 245; DB 2; Length 226;  
Best Local Similarity 100.0%; Pred. No. 8.8e-23;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKQHTVTITTKGENFTETDVKMMERVVEQMCVT 46  
|||||  
Db 143 NONNFVHDCVNITIKQHTVTITTKGENFTETDVKMMERVVEQMCVT 188

RESULT 2

B34759  
prion protein - golden hamster  
C;Species: Mesocricetus auratus (golden hamster)  
C;Date: 13-Jul-1990 #sequence\_revision 13-Jul-1990 #text\_change 13-Aug-1999  
C;Accession: B34759  
R;Lowenstein, D.H.; Butler, D.A.; Westaway, D.; McKinley, M.P.; Dearmond, S.J.; Prusiner, M.L. Cell. Biol. 10, 1153-1163, 1990  
A;Title: Three hamster species with different scrapie incubation times and neuropathology.  
A;Reference number: A34759; MUID:90158578; PMID:2406562  
A;Accession: B34759  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-254 <LOW>  
A;Cross-references: GB:M33959; NID:gl91182; PIDN:AAA37014.1; PID:gl91183  
C;Superfamily: major prion protein

Query Match 100.0%; Score 245; DB 2; Length 254;  
Best Local Similarity 100.0%; Pred. No. 9.9e-23;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKQHTVTITTKGENFTETDVKMMERVVEQMCVT 46  
|||||  
Db 171 NONNFVHDCVNITIKQHTVTITTKGENFTETDVKMMERVVEQMCVT 216

```
RESULT 3
A34759
prion protein - Chinese hamster
C;Species: Cricetus griseus (Chinese hamster)
C;Date: 13-Jul-1990 #sequence_revision 13-Jul-1990 #text_change 09-Jul-2004
C;Accession: A34759
R;Lowenstein, D.H.; Butler, D.A.; Westaway, D.; McKinley, M.P.; Dearmond, S.J.; Prusiner,
Mol. Cell. Biol. 10, 1153-1163, 1990
A;Title: Three hamster species with different scrapie incubation times and neuropathology
A;Reference number: A34759; MUID:90158578; PMID:2406562
A;Accession: A34759
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-254 <LOW>
A;Cross-references: UNIPROT:Q60506; GB:M33958; NID:g191180; PIDN:AAA37013.1; PID:g387056
C;Superfamily: major prion protein

Query Match 100.0%; Score 245; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 9.9e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NQNNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVQMCVT 46
|||||
Db 171 NQNNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVQMCVT 216
|||||

RESULT 4
A23544
major prion protein precursor - mouse
N;Alternate names: PrP; Scrapie prion
C;Species: Mus musculus (house mouse)
C;Date: 22-Jul-1987 #sequence_revision 22-Jul-1987 #text_change 09-Jul-2004
C;Accession: A29669; A23544; S02521; A22315
R;Westaway, D.; Goodman, P.A.; Miranda, C.A.; McKinley, M.P.; Carlson, G.A.; Prusiner, S
Cell 51, 651-662, 1987
A;Title: Distinct prion proteins in short and long scrapie incubation period mice.
A;Reference number: A29669; MUID:88052869; PMID:2890436
A;Accession: A29669
A;Molecule type: DNA
A;Residues: 1-254 <MES>
A;Cross-references: UNIPROT:P04925; GB:M18070; NID:g200528; PIDN:AAA39997.1; PID:g200528
A;Experimental source: strains NZW and I/LnJ
A;Note: the sequence shown is from the NZW strain; the sequence from the I/LnJ strain di
R;Locht, C.; Chesebro, B.; Race, R.; Keith, J.M.
Proc. Natl. Acad. Sci. U.S.A. 83, 6372-6376, 1986
A;Reference number: A23544; MUID:96313583; PMID:3462700
A;Accession: A23544
A;Molecule type: mRNA
A;Residues: 1-254 <LOC>
R;Hope, J.; Multhaup, G.; Reekie, L.J.D.; Kimberlin, R.H.; Beyreuther, K.
Eur. J. Biochem. 172, 271-277, 1988
A;Title: Molecular pathology of scrapie-associated fibril protein (PrP) in mouse brain a
A;Reference number: S02521; MUID:88166695; PMID:2894984
A;Accession: S02521
A;Molecule type: protein
A;Residues: 1-254 <HOP>
R;Chesebro, B.; Race, R.; Wehrly, K.; Nishio, J.; Bloom, M.; Lechner, D.; Bergstrom, S.;
Nature 315, 331-333, 1985
A;Title: Identification of scrapie prion protein-specific mRNA in scrapie-infected and u
A;Reference number: A22315; MUID:95213844; PMID:3923361
A;Accession: A22315
A;Molecule type: mRNA
A;Residues: 87-132, 'V', 134-164 <CHE>
C;Superfamily: major prion protein
C;Keywords: amyloid; blocked carboxyl end; brain; glycoprotein; lipoprotein; phosphatid
P;1-22/Domain: signal sequence #status predicted <SIG>
P;23-231/Product: major prion protein #status predicted <MAT>
P;232-254/Domain: carboxyl-terminal propeptide #status predicted <CTP>
F;178-213/Diulfide bonds: #status predicted
F;180,196/Binding site: carboxylate (Asn) (covalent) #status predicted
F;231/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form

Query Match 100.0%; Score 245; DB 2; Length 254;
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Best Local Similarity 100.0%; Pred. No. 9.9e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NQNNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVQMCVT 46
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Db 170 NQNNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVQMCVT 215
|||||

RESULT 5
S71041
major prion protein - black-handed spider monkey (fragment)
C;Species: Ateles geoffroyi (black-handed spider monkey)
C;Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;Accession: S71041; S53630
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71041
A;Molecule type: DNA
A;Residues: 1-232 <SCH>
A;Cross-references: UNIPROT:P40246; EMBL:U08309; NID:g474376; PIDN:AAC50097.1; PID:g47437
J. Mol. Biol. 245, 362-374, 1995
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53630
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-194, 'R', 196-231 <SCW>
A;Cross-references: EMBL:U08309
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 99.6%; Score 244; DB 2; Length 232;
Best Local Similarity 97.8%; Pred. No. 1.2e-22;
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NQNNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVQMCVT 46
|||||
Db 155 NQNNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVQMCIT 200
|||||

RESULT 6
S71048
major prion protein - Callicebus moloch (fragment)
C;Species: Callicebus moloch
C;Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;Accession: S71048; S53632
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71048
A;Molecule type: DNA
A;Residues: 1-241 <SCH>
A;Cross-references: UNIPROT:P40248; EMBL:U08312; NID:g475585; PIDN:AAC50100.1; PID:g47551
J. Mol. Biol. 245, 362-374, 1995
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53632
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-203, 'R', 205-240 <SCW>
A;Cross-references: EMBL:U08312
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 99.6%; Score 244; DB 2; Length 241;
Best Local Similarity 97.8%; Pred. No. 1.2e-22;
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NQNNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVQMCVT 46
|||||
```



A;Introns: #status absent  
A;Note: one intron occurs before the initiator codon  
A;Superfamily: major prion protein  
C;Keywords: amyloid; blocked carboxyl end; brain; glycoprotein; lipoprotein; phosphatidy  
F;1-22/Domain: signal sequence #status predicted <SIG>  
F;23-230/Product: major prion protein #status predicted <MAT>  
F;54-92/Region: 8-residue repeats (P-H-G-G-G-W-G-Q)  
F;231-253/Domain: carboxyl-terminal propeptide #status predicted <CTP>  
F;179-214/Disulfide bonds: #status predicted  
F;181,197/Binding site: carbohydrate (Asn) (covalent) #status predicted  
F;230/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form)

Query Match 99.6%; Score 244; DB 1; Length 253;  
Best Local Similarity 97.8%; Pred. No. 1.3e-22;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNITIKQHTVTTTGGNFTEEDVKMERVVVEQMCVT 46  
|||||  
Db 171 NQNFVHDCVNITIKQHTVTTTGGNFTEEDVKMERVVVEQMCIT 216  
|||||

RESULT 10  
184423  
major prion protein precursor - rhesus macaque  
C;Species: Macaca mulatta (rhesus macaque)  
C;Date: 24-May-1996 #sequence\_revision 24-May-1996 #text\_change 09-Jul-2004  
C;Accession: I84423; S53622; S71054  
R;Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Rubenstein, R.; D  
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994  
A;Title: Infectious amyloid precursor gene sequences in primates used for experimental t  
A;Reference number: I36907; MUID:95083661; PMID:7991600  
A;Accession: I84423  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: DNA  
A;Residues: 1-253 <RES>  
A;Cross-references: UNIPROT:P40254; EMBL:U15163; NID:G595850; PIDN:AAAG68635.1; PID:G5958  
R;Schatz, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53622  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-210,'R',212-253 <SCH>  
A;Cross-references: EMBL:U08307  
R;Schatz, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71054  
A;Molecule type: DNA  
A;Residues: 1-253 <SCW>  
A;Cross-references: EMBL:U08307; NID:G474372; PIDN:AAAC50095.1; PID:G474373  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 99.6%; Score 244; DB 2; Length 253;  
Best Local Similarity 97.8%; Pred. No. 1.3e-22;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNITIKQHTVTTTGGNFTEEDVKMERVVVEQMCVT 46  
|||||  
Db 171 NQNFVHDCVNITIKQHTVTTTGGNFTEEDVKMERVVVEQMCIT 216  
|||||

RESULT 11  
S71055  
major prion protein - pig-tailed macaque  
C;Species: Macaca nemestrina (pig-tailed macaque)  
C;Date: 14-Feb-1997 #sequence\_revision 14-Feb-1997 #text\_change 09-Jul-2004  
C;Accession: S71055; S53626  
R;Schatz, H.M.  
submitted to the EMBL Data Library, April 1994

A;Reference number: S71041  
A;Accession: S71055  
A;Molecule type: DNA  
A;Residues: 1-253 <SCH>  
A;Cross-references: UNIPROT:P40254; EMBL:U08306; NID:G474370; PIDN:AAAC50094.1; PID:G474373  
R;Schatz, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53626  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 8-210,'R',212-247 <SCW>  
A;Cross-references: EMBL:U08306  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 99.6%; Score 244; DB 2; Length 253;  
Best Local Similarity 97.8%; Pred. No. 1.3e-22;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNITIKQHTVTTTGGNFTEEDVKMERVVVEQMCVT 46  
|||||  
Db 171 NQNFVHDCVNITIKQHTVTTTGGNFTEEDVKMERVVVEQMCIT 216  
|||||

RESULT 12  
I37032  
major prion protein precursor - gorilla  
C;Species: Gorilla gorilla (gorilla)  
C;Date: 31-May-1996 #sequence\_revision 31-May-1996 #text\_change 09-Jul-2004  
C;Accession: I37032  
R;Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Rubenstein, R.; D  
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994  
A;Title: Infectious amyloid precursor gene sequences in primates used for experimental t  
A;Reference number: I36907; MUID:95083661; PMID:7991600  
A;Accession: I37032  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: DNA  
A;Residues: 1-253 <RES>  
A;Cross-references: UNIPROT:P40252; EMBL:U15166; NID:G563208; PIDN:AAA68633.1; PID:G56320  
C;Superfamily: major prion protein

Query Match 99.6%; Score 244; DB 2; Length 253;  
Best Local Similarity 97.8%; Pred. No. 1.3e-22;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNITIKQHTVTTTGGNFTEEDVKMERVVVEQMCVT 46  
|||||  
Db 171 NQNFVHDCVNITIKQHTVTTTGGNFTEEDVKMERVVVEQMCIT 216  
|||||

RESULT 13  
I61848  
major prion protein precursor - common squirrel monkey  
C;Species: Saimiri sciureus (common squirrel monkey)  
C;Date: 31-May-1996 #sequence\_revision 31-May-1996 #text\_change 09-Jul-2004  
C;Accession: I61848  
R;Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Rubenstein, R.; D  
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994  
A;Title: Infectious amyloid precursor gene sequences in primates used for experimental t  
A;Reference number: I36907; MUID:95083661; PMID:7991600  
A;Accession: I61848  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: DNA  
A;Residues: 1-252 <RES>  
A;Cross-references: UNIPROT:P40258; EMBL:U15165; NID:G595852; PIDN:AAA68636.1; PID:G59585  
C;Superfamily: major prion protein

Query Match 99.2%; Score 243; DB 2; Length 252;  
Best Local Similarity 95.7%; Pred. No. 1.7e-22;  
Matches 44; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Search completed: July 26, 2005, 12:00:43  
Job time : 16.75 secs

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GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 26, 2005, 11:42:12 ; Search time 81 Seconds  
(without alignments)  
290.810 Million cell updates/sec

Title: US-10-031-975-20\_COPY\_176\_221

Perfect score: 245

Sequence: 1 NONNFVHDCVNITIKOHTVT.....NFTETDKMMERVVEQMCVT 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt\_03.\*

1: uniprot\_sprot.\*

2: uniprot\_trembl.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	245	100.0	240	2	Q8VHV4 microtus ag
2	245	100.0	248	2	Q8VHV5 clethrionom
3	245	100.0	253	2	Q320T5 meriones un
4	245	100.0	254	1	Q30506 cricetus
5	245	100.0	254	1	Q60468 cricetus
6	245	100.0	254	1	P04925 mus musculu
7	245	100.0	254	1	P13852 rattus norv
8	245	100.0	254	1	Q320T3 sigmodon hi
9	245	100.0	254	2	Q8VHV6 apodemus sy
10	245	100.0	254	2	Q320T4 sigmodon fu
11	244	99.6	220	2	Q866W7 ocheotona pr
12	244	99.6	232	1	PRI0_ATEGE
13	244	99.6	238	1	PRI0_CERAT
14	244	99.6	238	1	PRI0_MACSY
15	244	99.6	238	1	PRI0_Thege
16	244	99.6	238	2	Q86XR1
17	244	99.6	241	1	PRI0_CALMO
18	244	99.6	241	1	PRI0_MANSIP
19	244	99.6	245	1	PRI0_CERAE
20	244	99.6	245	1	PRI0_CERDI
21	244	99.6	245	1	PRI0_CERMO
22	244	99.6	246	1	PRI0_CERNE
23	244	99.6	246	1	PRI0_CERTO
24	244	99.6	246	1	PRI0_ERYP
25	244	99.6	252	1	PRI0_CALJA
26	244	99.6	252	1	PRI0_CERAP
27	244	99.6	253	1	PRI0_COLGU
28	244	99.6	253	1	PRI0_GORGO
29	244	99.6	253	1	PRI0_HUMAN
30	244	99.6	253	1	PRI0_MACAR
31	244	99.6	253	1	PRI0_MACFA

32	244	99.6	253	1	PRI0_MACFU
33	244	99.6	253	1	PRI0_MACMU
34	244	99.6	253	1	PRI0_MACNE
35	244	99.6	253	1	PRI0_PAPHA
36	244	99.6	253	1	PRI0_PONPY
37	244	99.6	253	1	PRI0_PREFR
38	244	99.6	253	2	Q6FGR8
39	244	99.6	253	2	Q6JL99
40	244	99.6	277	2	Q6SES1
41	244	99.6	285	2	Q75942
42	243	99.2	248	2	Q866V6
43	243	99.2	260	1	PRI0_SAI5C
44	242	98.8	215	2	Q811W3
45	242	98.8	224	2	Q811W4

P67994 macaca fusc  
P67997 macaca mula  
P67995 macaca neme  
P67996 papio hamad  
P40256 pongo pygma  
P40257 presbytis f  
Q6j199 macaca sapie  
Q6fgr8 homo sapien  
Q6seel homo sapien  
Q75942 homo sapien  
Q866v6 dicerops bic  
P40258 saimiri aci  
Q811w3 spalax leuc  
Q811w4 spalax leuc

#### ALIGNMENTS

RESULT 1  
Q8VHV4  
ID Q8VHV4 PRELIMINARY; PRT; 240 AA.  
AC Q8VHV4  
DT 01-MAR-2002 (Tremblrel. 20, Created)  
DT 01-MAR-2002 (Tremblrel. 20, Last sequence update)  
DT 01-JUN-2003 (Tremblrel. 24, Last annotation update)  
DE Prion protein (Fragment).  
GN Name=Prp;  
OS Microtus agrestis (Short-tailed field vole).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Arvicolinae;  
OC Microtus.  
OX NCBI\_TaxID=29092;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Dell'Omo G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R.,  
RA Di Gardo G., Kretschmar H.A., Wolfer D.P., Lipp H.P.;  
RL Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.  
CC -1- SIMILARITY: Belongs to the prion family.  
DR EMBL; AF367625; AAU57232.1; -.  
DR HSP; P04925; IAG2.  
DR Pfam; PF00377; Prion; 1.  
DR PRINTS; PR03991; Prion octapep; 6.  
DR SMART; PR00341; PRION.  
DR SMART; SM00157; PRP; 1.  
DR PROSITE; PS00251; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
FT NON\_TER 1 1  
FT NON\_TER 240 240  
SQ SEQUENCE 240 AA; 26308 MW; BCA4EDD3F5F76693 CRC64;

Query Match 100.0%; Score 245; DB 2; Length 240;  
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Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNITIKOHTVT...NFTETDKMMERVVEQMCVT 46  
Db 163 NONNFVHDCVNITIKOHTVT...NFTETDKMMERVVEQMCVT 208

RESULT 2  
Q8VHV5  
ID Q8VHV5 PRELIMINARY; PRT; 248 AA.  
AC Q8VHV5  
DT 01-MAR-2002 (Tremblrel. 20, Created)  
DT 01-MAR-2002 (Tremblrel. 20, Last sequence update)  
DT 01-JUN-2003 (Tremblrel. 24, Last annotation update)  
DE Prion protein (Fragment).  
GN Name=Prp;  
OS Clethrionomys glareolus (Bank vole).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Arvicolinae;

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OC Clethrionomys.
OX NCBI_TaxID=51090;
RN [1]
RP SEQUENCE FROM N.A.
RA Dell'Omo G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R.,
RA Di Gardo G., Kretzschmar H.A., Wolfer D.P., Lipp H.P.,
RL Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL: AF367624; AAU57231.1; -.
DR HSSP: P04925; IAG2.
DR Pfam: PF00377; Prion; 1.
DR PRINTS: PR00341; PRION.
DR SMART: SM00157; PRP; 1.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW Prion.
FT NON TER 248 248
SQ SEQUENCE 248 AA; 27259 MW; 815E64ECD2773C2C CRC64;

Query Match 100.0%; Score 245; DB 2; Length 248;
Best Local Similarity 100.0%; Pred. NO. 8.8e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNIITIKQHTVTTTKGENFTETDVKMMERVVEQMCVT 46
Db 171 NONNFVHDCVNIITIKQHTVTTTKGENFTETDVKMMERVVEQMCVT 216

RESULT 3
Q920T5 PRELIMINARY; PRT; 253 AA.
AC Q920T5;
DT 01-MAY-1999 (TrEMBLrel. 10, Created)
DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Prion protein (Fragment).
GN Name=Prp;
OS Eukaryotes unguiculatus (Mongolian jird) (Mongolian gerbil).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Gerbillinae;
OC Muriones.
OX NCBI_TaxID=10047;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=99303687; PubMed=10373359; DOI=10.1006/jmbi.1999.2831;
RA Wopfinger F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Schatzl H.M.,
RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
RT of flexible regions of the prion protein.";
RL J. Mol. Biol. 289:1163-1178(1999).
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL: AF117314; AAD19985.1; -.
DR HSSP: P04925; IAG2.
DR InterPro: IPR000817; Prion.
DR Pfam: PF00377; Prion; 1.
DR PRINTS: PR00341; PRION.
DR SMART: SM00157; PRP; 1.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW Prion.
FT NON TER 253 253
SQ SEQUENCE 253 AA; 27747 MW; B44D16867A97307F CRC64;

Query Match 100.0%; Score 245; DB 2; Length 253;
Best Local Similarity 100.0%; Pred. NO. 9e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NONNFVHDCVNIITIKQHTVTTTKGENFTETDVKMMERVVEQMCVT 46
Db 170 NONNFVHDCVNIITIKQHTVTTTKGENFTETDVKMMERVVEQMCVT 215

RESULT 4
PRIO_CRIGR STANDARD; PRT; 254 AA.
ID AC Q60506;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (Prp) (PrP27-30) (PrP33-35C).
GN Name=PRNP;
OS Cricetus griseus (Chinese hamster).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
OC Cricetus.
OX NCBI_TaxID=10029;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=90158578; PubMed=2406562;
RA Lowenstein D.H., Butler D.A., Westaway D., McKinley M.P.,
RA DeArmond S.J., Prusiner S.B.;
RT "Three hamster species with different scrapie incubation times and
RT neuropathological features encode distinct prion proteins.";
RL Mol. Cell. Biol. 10:1153-1163(1990).
CC -1- FUNCTION: The function of Prp is not known. Prp is encoded in the
CC host genome and is expressed both in normal and infected cells.
CC -1- SUBUNIT: Prp has a tendency to aggregate yielding polymers called
CC "rods".
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -1- DISEASE: Prp is found in high quantity in the brain of humans and
CC animals infected with the degenerative neurological diseases kuru,
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC transmissible mink encephalopathy (TME), etc.
CC -1- SIMILARITY: Belongs to the prion family.
CC
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CC or send an email to license@sib-sib.ch).
CC
CC EMBL: M33958; AAA37013.1; -.
CC FTR: A34759; A34759.
CC HSSP: P04925; IAG2.
CC InterPro: IPR000817; Prion.
CC Pfam: PF00377; Prion; 1.
CC Pfam: PF03991; Prion octapep; 6.
CC PRINTS: PR00341; PRION.
CC PROSITE: PS00291; PRION_1; 1.
CC PROSITE: PS00706; PRION_2; 1.
KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
FT SIGNAL 1 22 By similarity.
FT CHAIN 23 231 Major prion protein.
FT PROPEP 232 254 Removed in mature form.
FT LIPID 231 231 GPI-anchor amidated serine.
FT DOMAIN 90 231 PrP27-30 (protease resistant core).
FT CARBOHYD 181 181 N-linked (GlcNAc...) (By similarity).
FT CARBOHYD 197 197 N-linked (GlcNAc...) (By similarity).
FT DISULFID 179 214 By similarity.
FT DOMAIN 51 91 5 X 8 AA tandem repeats of P-H-G-G-W-G-
FT REPEAT 51 59 Q.
FT REPEAT 60 67 1.
FT REPEAT 68 75 2.
FT REPEAT 76 83 3.
FT REPEAT 84 91 4.
FT REPEAT 84 91 5.
SQ SEQUENCE 254 AA; 27823 MW; 6299CA000EB8607D CRC64;

Query Match 100.0%; Score 245; DB 1; Length 254;

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Best Local Similarity 100.0%; Pred. No. 9.1e-23;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NONNFVHDCVNITIKOHTVTTTGTGENTETDVKMERVVEQMCVT 46  
|||||  
Db 171 NONNFVHDCVNITIKOHTVTTTGTGENTETDVKMERVVEQMCVT 216

## RESULT 5

PRIO CRIMI  
ID PRIO CRIMI STANDARD; PRT; 254 AA.  
AC Q60468;  
DT 15-JUL-1998 (Rel. 36, Created)  
DT 15-JUL-1998 (Rel. 36, Last sequence update)  
DT 05-JUL-2004 (Rel. 44, Last annotation update)  
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).  
GN Name=PRNP;  
OS Cricetulus migratorius (Armenian hamster).  
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;  
OC Cricetulus.  
OX NCBI\_TaxID=10032;  
RN [1]  
SEQUENCE FROM N.A.  
RP TISSUE=Brain;  
RC MEDLINE=90158578; PubMed=2406562;  
RX Lowenstein D.H., Butler D.A., Westaway D., McKinley M.P.,  
RA DeArmond S.J., Prusiner S.B.;  
RT "Three hamster species with different scrapie incubation times and  
neuropathological features encode distinct prion proteins.";  
RL Mol. Cell. Biol. 10:1153-1163(1990).  
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the  
host genome and is expressed both in normal and infected cells.  
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called  
"rods".  
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and  
animals infected with the degenerative neurological diseases kuru,  
Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome  
(GSS), scrapie, bovine spongiform encephalopathy (BSE), -  
transmissible mink encephalopathy (TME), etc.  
CC -!- SIMILARITY: Belongs to the prion family.  
-----  
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or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
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EMBL; M33959; AAA37014.1; -;  
DR HSP; P04925; IAG2.  
DR InterPro; IPR000817; Prion.  
DR Pfam; PF00377; Prion; 1.  
DR Pfam; PF03991; Prion octapep; 6.  
DR PRINTS; PR00341; PRION.  
DR PROSITE; PS00291; PRION 1; 1.  
DR PROSITE; PS00706; PRION 2; 1.  
KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
FT SIGNAL 1 22 By similarity.  
FT CHAIN 23 231 Major prion protein.  
FT PROPEP 232 254 Removed in mature form.  
FT LIPID 231 231 GPI-anchor amidated serine.  
FT DOMAIN 90 231 PrP27-30 (protease resistant core).  
FT CARBOHYD 181 181 N-linked (GlcNAc...) (By similarity).  
FT CARBOHYD 197 197 N-linked (GlcNAc...) (By similarity).  
FT DISULFID 179 214 By similarity.  
FT DOMAIN 51 91 5 X 8 AA tandem repeats of P-H-G-G-G-W-G-  
Q.  
FT REPEAT 51 59 1.  
FT REPEAT 60 67 2.  
FT REPEAT 68 75 3.

FT REPEAT 76 83 4.  
FT REPEAT 84 91 5.  
SQ SEQUENCE 254 AA; 27855 MW; 7B963FC6F77P9D0F CRC64;

Query Match 100.0%; Score 245; DB 1; Length 254;  
Best Local Similarity 100.0%; Pred. No. 9.1e-23;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NONNFVHDCVNITIKOHTVTTTGTGENTETDVKMERVVEQMCVT 46  
|||||  
Db 171 NONNFVHDCVNITIKOHTVTTTGTGENTETDVKMERVVEQMCVT 216

## RESULT 6

PRIO MOUSE  
ID PRIO MOUSE STANDARD; PRT; 254 AA.  
AC P04925;  
DT 13-AUG-1987 (Rel. 05, Created)  
DT 01-JAN-1990 (Rel. 13, Last sequence update)  
DT 25-OCT-2004 (Rel. 45, Last annotation update)  
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).  
GN Name=Prnp; Synonyms=Prn-p;  
OS Mus musculus (Mouse).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
OX NCBI\_TaxID=10090;  
RN [1]  
SEQUENCE FROM N.A.  
RC STRAIN=I/LNj, and NZW;  
RX MEDLINE=88052869; PubMed=2890436; DOI=10.1016/0092-8674(87)90134-6;  
RA Westaway D., Goodman P.A., Mirenda C.A., McKinley M.P., Carlson G.A.,  
RA Prusiner S.B.;  
RT "distinct prion proteins in short and long scrapie incubation period  
mice.";  
RL Cell 51:651-662(1987).  
RN [2]  
SEQUENCE FROM N.A.  
RX MEDLINE=86313583; PubMed=3462700;  
RA Locht C., Chesebro B., Race R., Keith J.M.;  
RT "Molecular cloning and complete sequence of prion protein cDNA from  
mouse brain infected with the ME7 strain of scrapie agent.";  
RL Proc. Natl. Acad. Sci. U.S.A. 83:6372-6376(1986).  
RN [3]  
SEQUENCE FROM N.A.  
RX MEDLINE=88166695; PubMed=2894984;  
RA Hope J., Multhaup G., Reekie L.J.D., Kimberlin R.H., Beyreuther K.;  
RT "Molecular pathology of scrapie-associated fibril protein (PrP) in  
mouse brain affected by the ME7 strain of scrapie.";  
RL Eur. J. Biochem. 172:271-277(1988).  
RN [4]  
SEQUENCE FROM N.A.  
RC STRAIN=NZW; TISSUE=Brain;  
RX MEDLINE=99018115; PubMed=9799790;  
RA Lee I.Y., Westaway D., Smit A.F.A., Wang K., Seto J., Chen L.,  
RA Acharya C., Ankener M., Baskin D., Cooper C., Yao H., Prusiner S.B.,  
RA Hood L.E.;  
RT "Complete genomic sequence and analysis of the prion protein gene  
region from three mammalian species.";  
RL Genome Res. 8:1022-1037(1998).  
RN [5]  
SEQUENCE FROM N.A.  
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;  
RA Srausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,  
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,  
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,  
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heieh F.,  
RA Diatchenko L., Marusina K., Farmer A., Rubin G.M., Hong L.,  
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,  
RA Brownstein M.J., Udell T.B., Toshiyuki S., Carninci P., Prange C.,  
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,  
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,  
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,  
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Fahey J., Helton E., Kettman M., Madan A., Rodriguez S., Sanchez A.,  
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,  
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,  
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,  
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Small D.E.,  
 RA Schnerch A., Schein J.E., Jones S.J.M., Maria M.A.,  
 RA "Generation and initial analysis of more than 15,000 full-length human  
 RT and mouse cDNA sequences";  
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).  
 RN [6]  
 RN SEQUENCE OF 87-164 FROM N.A.  
 RP MEDLINE=85213844; PubMed=3923361;  
 RX Chesebro B., Race R., Wehrly K., Nishio J., Bloom M., Lechner D.,  
 RA Chesebro B., Race R., Wehrly K., Nishio J., Bloom M., Lechner D.,  
 RA Bergstrom S., Robbins K., Mayer L., Keith J.M., Garon C., Haase A.;  
 RT "Identification of scrapie prion protein-specific mRNA in scrapie-  
 RT infected and uninfected brain.";  
 RL Nature 315:331-333(1985).  
 RN [7]  
 RN STRUCTURE BY NMR OF 120-230.  
 RP MEDLINE=96317593; PubMed=8700211; DOI=10.1038/382180a0;  
 RX Riek R., Hornemann S., Wider G., Billeter M., Glockshuber R.,  
 RA Wuethrich K.;  
 RT "NMR structure of the mouse prion protein domain PrP(121-321).";  
 RL Nature 382:180-182(1996).  
 RN [8]  
 RN STRUCTURE BY NMR OF 23-231.  
 RP MEDLINE=97424376; PubMed=9280298; DOI=10.1016/S0014-5793(97)00920-4;  
 RX Riek R., Hornemann S., Wider G., Glockshuber R., Wuethrich K.;  
 RA "NMR characterization of the full-length recombinant murine prion  
 RT protein, mPrP(23-231).";  
 RL FEBS Lett. 413:282-288(1997).  
 RN [9]  
 RN HYDROXYLATION OF PRO-44.  
 RP MEDLINE=20490364; PubMed=11032800; DOI=10.1093/emboj/19.20.5324;  
 RX Gill A.C., Ritchie M.A., Hunt L.G., Steane S.E., Davies K.G.,  
 RA Bocking S.P., Rie A.G.O., Bennett A.D., Hope J.;  
 RT "Post-translational hydroxylation at the N-terminus of the prion  
 RT protein reveals presence of PP1I structure in vivo.";  
 RL EMBO J. 19:5324-5331(2000).  
 RN [10]  
 RN FUNCTION: The function of PrP is not known. PrP is encoded in the  
 CC host genome and is expressed both in normal and infected cells.  
 CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called  
 CC "folds".  
 CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
 CC -1- DISEASE: Found in high quantity in the brain of humans and animals  
 CC infected with degenerative neurological diseases such as kuru,  
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome  
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
 CC transmissible mink encephalopathy (TME), etc.  
 CC -1- SIMILARITY: Belongs to the prion family.  
 CC -----  
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 CC -----  
 DR EMBL; M18070; AAA39997.1; -;  
 DR EMBL; M18071; AAA39998.1; -;  
 DR EMBL; M13685; AAA39996.1; -;  
 DR EMBL; U29186; AAC02804.1; -;  
 DR EMBL; BC006703; AAH06703.1; -;  
 DR EMBL; M30384; AAA39999.1; -;  
 DR PIR; A29669; A23544.  
 DR PDB; 1AG2; NMR; @=123-225.  
 DR MGD; MGI:97769; Prnp.  
 DR GO; GO:0005783; C:endoplasmic reticulum; IDA.  
 DR GO; GO:0005794; C:Golgi apparatus; IDA.  
 DR GO; GO:0045121; C:lipid raft; IDA.  
 DR GO; GO:0005507; F:copper ion binding; IDA.  
 DR GO; GO:0006979; P:response to oxidative stress; IDA.

DR InterPro; IPR000817; Prion.  
 DR Pfam; PF00377; Prion; 1.  
 DR Pfam; PF03991; Prion-Octapep; 6.  
 DR PRINTS; PR00341; PRION.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 KW 3D-structure; Glycoprotein; GPI-anchor; Hydroxylation; Lipoprotein;  
 KW Polymorphism; Prion; Repeat; Signal.  
 FT SIGNAL 1 22  
 FT CHAIN 23 230 Major prion protein.  
 FT PROPEP 231 254 Removed in mature form (By similarity).  
 FT MOD\_RES 44 44 Hydroxyproline.  
 FT LIPID 230 230 GPI-anchor amidated serine (By  
 FT similarity).  
 FT CARBOHYD 180 180 N-linked (GlcNAc. .) (Probable).  
 FT CARBOHYD 196 196 N-linked (GlcNAc. .) (Probable).  
 FT DISULFID 178 213 5 X 8 AA tandem repeats of P-H-G-G-W-G-  
 FT DOMAIN 51 90 Q.  
 FT REPEAT 51 58 1.  
 FT REPEAT 59 66 2.  
 FT REPEAT 67 74 3.  
 FT REPEAT 75 82 4.  
 FT REPEAT 83 90 5.  
 FT VARIANT 108 108 L -> F (linked to long incubation time).  
 FT VARIANT 189 189 T -> V (linked to long incubation time).  
 FT CONFLICT 133 133 M -> V (in ref. 2 and 6).  
 FT TURN 124 126  
 FT STRAND 128 129  
 FT STRAND 143 152  
 FT TURN 153 155  
 FT TURN 161 162  
 FT STRAND 171 191  
 FT HELIX 192 194  
 FT TURN 199 221  
 FT HELIX 222 224  
 FT TURN 222 224  
 SQ SEQUENCE 254 AA; D5331E6321826CC0 CRC64;  
 Query Match 100.0%; Score 245; DB 1; Length 254;  
 Best Local Similarity 100.0%; Pred. No. 9.1e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 NQNNFVHDCVNITIKOHTTTTNGENFTETDVKMERVVVEQMCVT 46  
 DDb 170 NQNNFVHDCVNITIKOHTTTTNGENFTETDVKMERVVVEQMCVT 215  
 RESULT 7  
 PRIO RAT ID PRIO RAT STANDARD; PRT; 254 AA.  
 AC P13852;  
 DT 01-JAN-1990 (Rel. 13, Created)  
 DT 01-NOV-1997 (Rel. 35, Last sequence update)  
 DT 05-JUL-2004 (Rel. 44, Last annotation update)  
 DE Major prion protein precursor (Prp).  
 GN Name:Prp; Synonyms=Prn;  
 OS Rattus norvegicus (Rat).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.  
 OX NCBI\_TaxID=10116;  
 RN [1]  
 RN SEQUENCE FROM N.A.  
 RC STRAIN=SU/D, and Zitter; TISSUE=Liver;  
 RX MEDLINE=94232539; PubMed=7909925; DOI=10.1016/0304-3940(94)90478-2;  
 RA Gomi H., Ikeda T., Kunieda T., Itohara S., Prusiner S.B.,  
 RA Yamanouchi K.;  
 RT "Prion protein (PrP) is not involved in the pathogenesis of spongiform  
 RT encephalopathy in zitter rats";  
 RL Neurosci. Lett. 166:171-174(1994).  
 RN [2]  
 RN SEQUENCE FROM N.A.  
 RC STRAIN=Wistar; TISSUE=Liver;  
 RX MEDLINE=97033369; PubMed=8879116;



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Db 171 NQNFVHDCVNIITIKQHTVTTTNGENFTETDVQMRRVVEQMCVT 216
RESULT 9
ID Q866W7 PRELIMINARY; PRT; 254 AA.
AC Q866W7;
DT 01-MAR-2002 (TReMBLrel. 20, Created)
DT 01-MAR-2002 (TReMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
DE Prion protein.
GN Name=PrP;
OS Apodemus sylvaticus (European woodmouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
OC Apodemus.
OX NCBI_TaxID=10129;
RN [1]
RP SEQUENCE FROM N.A.
RA Dell'Ono G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R.,
RA Di Gardo G., Kretschmar H.A., Wolfer D.P., Lipp H.P.;
RA Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL; AF367623; AAL57230.1; -.
DR HSP; P04925; IAG2.
DR Pfam; PF00377; Prion; 1.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
DR Prion.
KW Prion.
SQ SEQUENCE 254 AA; 27857 MW; CB2E5658C47A8885 CRC64;

Query Match 100.0%; Score 245; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 9.1e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNIITIKQHTVTTTNGENFTETDVQMRRVVEQMCVT 46
171 NQNFVHDCVNIITIKQHTVTTTNGENFTETDVQMRRVVEQMCVT 216

RESULT 10
ID Q920T4 PRELIMINARY; PRT; 254 AA.
AC Q920T4;
DT 01-MAY-1999 (TReMBLrel. 10, Created)
DT 01-MAY-1999 (TReMBLrel. 10, Last sequence update)
DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
DE Prion protein (Fragment).
GN Name=PrP;
OS Sigmodon fulviventer (tawny-bellied cotton rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
OC Sigmodon.
OX NCBI_TaxID=89246;
RN [1]
RP SEQUENCE FROM N.A.
RA TISSUE=Brain;
RA MEDLINE=99303687; PubMed=10373359; DOI=10.1006/jmbi.1999.2831;
RA Wopfnar F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Schatzl H.M.;
RA "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
RT of flexible regions of the prion protein.";
RL J. Mol. Biol. 289:1163-1178(1999).
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL; AF117324; AAD19985.1; -.
DR HSP; P04925; IAG2.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion octapep; 6.
DR PRINTS; PR00341; PRION.

Db 171 NQNFVHDCVNIITIKQHTVTTTNGENFTETDVQMRRVVEQMCVT 216
171 NQNFVHDCVNIITIKQHTVTTTNGENFTETDVQMRRVVEQMCVT 216

Query Match 100.0%; Score 245; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 9.1e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNIITIKQHTVTTTNGENFTETDVQMRRVVEQMCVT 46
171 NQNFVHDCVNIITIKQHTVTTTNGENFTETDVQMRRVVEQMCVT 216

RESULT 11
ID Q866W7 PRELIMINARY; PRT; 220 AA.
AC Q866W7;
DT 01-JUN-2003 (TReMBLrel. 24, Created)
DT 01-JUN-2003 (TReMBLrel. 24, Last sequence update)
DT 01-MAR-2004 (TReMBLrel. 26, Last annotation update)
DE Prion protein (Fragment).
GN Name=PRNP;
OS Ochotona princeps (Southern American pika).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Ochotonidae; Ochotona.
OX NCBI_TaxID=9978;
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE=22408137; PubMed=12519913; DOI=10.1093/molbev/mag014;
RA van Rheede T., Smolenaars M.M., Madsen O., De Jong W.W.;
RA "Molecular evolution of the mammalian prion protein.";
RL Mol. Biol. Evol. 20:111-121(2003).
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL; AV133036; AAN16490.1; -.
DR HSP; P04925; IAG2.
DR InterPro; IPR000817; Prion.
DR Pfam; PF03991; Prion octapep; 5.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
DR Prion.
KW Prion.
FT NON_TER 1 1
FT NON_TER 220 220
SQ SEQUENCE 220 AA; 23872 MW; 5318CF0BE39FB669 CRC64;

Query Match 99.6%; Score 244; DB 2; Length 220;
Best Local Similarity 97.8%; Pred. No. 1e-22;
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NQNFVHDCVNIITIKQHTVTTTNGENFTETDVQMRRVVEQMCVT 46
171 NQNFVHDCVNIITIKQHTVTTTNGENFTETDVQMRRVVEQMCVT 216

RESULT 12
ID P402T6 STANDARD; PRT; 232 AA.
AC P402T6;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
GN Name=PRNP;
OS Ateles geoffroyi (Black-handed spider monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Ateles.
OX NCBI_TaxID=9509;
RN [1]
RP SEQUENCE FROM N.A.
```

RX MEDLINE=95139066; PubMed=7837269;  
 RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;  
 RT "Prion protein gene variation among primates";  
 RL J. Mol. Biol. 245:362-374(1995).  
 CC -!- FUNCTION: The function of Prp is not known. Prp is encoded in the  
 CC host genome and is expressed both in normal and infected cells.  
 CC -!- SUBUNIT: Prp has a tendency to aggregate yielding polymers called  
 CC "rods".  
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
 CC -!- DISEASE: Prp is found in high quantity in the brain of humans and  
 CC animals infected with the degenerative neurological diseases kuru,  
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome  
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
 CC transmissible mink encephalopathy (TME), etc.  
 CC -!- SIMILARITY: Belongs to the prion family.  
 CC -----  
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 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC -----  
 CC EMBL; U08309; AAC50097.1; -;  
 DR PIR; S71041; S71041.  
 DR HSSP; P23907; IG04.  
 DR InterPro; IPR000817; Prion.  
 DR Pfam; PF00377; Prion; 1.  
 DR Pfam; PF03991; Prion octapep; 5.  
 DR PRINTS; PR00341; PRION.  
 DR PROSITE; PS00291; PRION 1; 1.  
 DR PROSITE; PS00706; PRION 2; 1.  
 KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
 FT NON TER 1 1  
 FT SIGNAL <1 15 By similarity.  
 FT CHAIN 16 214 Major prion protein.  
 FT PROPEP 215 >232 Removed in mature form (By similarity).  
 FT LIPID 214 214 GPI-anchor amidated serine (By  
 FT similarity).  
 FT DISULFID 163 198 By similarity.  
 FT CARBOHYD 165 165 N-linked (GlcNAc... ) (Potential).  
 FT CARBOHYD 181 181 N-linked (GlcNAc... ) (Potential).  
 FT DOMAIN 44 84 4 X 8 AA tandem repeats of P-H-G-G-W-G-  
 FT Q.  
 FT REPEAT 44 51 1.  
 FT REPEAT 52 59 2.  
 FT REPEAT 60 67 3.  
 FT REPEAT 68 75 4.  
 FT NON TER 232 232  
 SQ SEQUENCE 232 AA; 25596 MW; 0B2D75F04C05CC4A CRC64;  
 Query Match 99.6%; Score 244; DB 1; Length 232;  
 Best Local Similarity 97.8%; Pred. No. 1.1e-22;  
 Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
 Oy 1 NONNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVVEQMCVT 46  
 Db 155 NONNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVVEQMCIT 200

RESULT 13  
 PRIO CERAT STANDARD; PRT; 238 AA.  
 AC P67990; Q95145; Q95200;  
 DT 01-NOV-1997 (Rel. 35, Created)  
 DT 01-NOV-1997 (Rel. 35, Last sequence update)  
 DT 25-OCT-2004 (Rel. 45, Last annotation update)  
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).  
 GN Name=PRNP;  
 OS Cercopithecus aethiops (Black mangabey).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;

OC Cercopithecinae; Cercocebus.  
 OX NCBI\_TaxID=36222;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA van der Kuyl A.C., Dekker J.T., Goudsmit J.;  
 RT "Evidence for an increased substitution rate of the hominoid prion  
 RT protein gene during the period of brain expansion";  
 RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.  
 CC -!- FUNCTION: The function of Prp is not known. Prp is encoded in the  
 CC host genome and is expressed both in normal and infected cells (By  
 CC similarity).  
 CC -!- SUBUNIT: Prp has a tendency to aggregate yielding polymers called  
 CC "rods" (By similarity).  
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By  
 CC similarity).  
 CC -!- DISEASE: Prp is found in high quantity in the brain of humans and  
 CC animals infected with the degenerative neurological diseases kuru,  
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome  
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
 CC transmissible mink encephalopathy (TME), etc.  
 CC -!- SIMILARITY: Belongs to the prion family.  
 CC -----  
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 CC -----  
 CC EMBL; U75384; AAB50623.1; -;  
 DR HSSP; P23907; IG04.  
 DR InterPro; IPR000817; Prion.  
 DR Pfam; PF00377; Prion; 1.  
 DR Pfam; PF03991; Prion octapep; 5.  
 DR PRINTS; PR00341; PRION.  
 DR PROSITE; PS00291; PRION 1; 1.  
 DR PROSITE; PS00706; PRION 2; 1.  
 KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
 FT NON TER 1 1  
 FT SIGNAL <1 15 By similarity.  
 FT CHAIN 16 215 Major prion protein.  
 FT PROPEP 216 238 Removed in mature form (By similarity).  
 FT LIPID 215 215 GPI-anchor amidated serine (By  
 FT similarity).  
 FT DISULFID 164 199 By similarity.  
 FT CARBOHYD 166 166 N-linked (GlcNAc... ) (Potential).  
 FT CARBOHYD 182 182 N-linked (GlcNAc... ) (Potential).  
 FT DOMAIN 44 76 4 X 8 AA tandem repeats of P-H-G-G-W-G-  
 FT Q.  
 FT REPEAT 44 52 1.  
 FT REPEAT 53 60 2.  
 FT REPEAT 61 68 3.  
 FT REPEAT 69 76 4.  
 SQ SEQUENCE 238 AA; 26123 MW; 5F59A3EBC3E3531B CRC64;  
 Query Match 99.6%; Score 244; DB 1; Length 238;  
 Best Local Similarity 97.8%; Pred. No. 1.1e-22;  
 Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
 Oy 1 NONNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVVEQMCVT 46  
 Db 156 NONNFVHDCVNITIKQHTVTTTNGENFTETDVKKMERVVVEQMCIT 201

RESULT 14  
 PRIO MACSY STANDARD; PRT; 238 AA.  
 AC P67991; Q95145; Q95200;  
 DT 01-NOV-1997 (Rel. 35, Created)  
 DT 01-NOV-1997 (Rel. 35, Last sequence update)  
 DT 25-OCT-2004 (Rel. 45, Last annotation update)  
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).

GN Name=PRNP;  
OS Macaca sylvanus (Barbary ape).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;  
OC Cercopithecinae; Macaca.  
OX NCBI\_TaxID=9546;  
RN [1]  
RP SEQUENCE FROM N.A. Dekker J.T., Goudsmit J.;  
RA van der Kuyl A.C., Dekker J.T., Goudsmit J.;  
RT "Evidence for an increased substitution rate of the hominoid prion  
RT protein gene during the period of brain expansion.";  
RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.  
CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the  
CC host genome and is expressed both in normal and infected cells (By  
CC similarity).  
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called  
CC "rods" (By similarity).  
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By  
CC similarity).  
CC -1- DISEASE: PrP is found in high quantity in the brain of humans and  
CC animals infected with the degenerative neurological diseases kuru,  
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome  
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
CC transmissible mink encephalopathy (TME), etc.  
CC -1- SIMILARITY: Belongs to the prion family.  
CC  
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CC  
CC EMBL; U75382; AAB50629.1; -;  
CC HSP; P23907; IG04.  
CC InterPro: IPR000817; Prion.  
CC Pfam; PF00377; Prion; 1.  
CC PRINTS; PR00341; PRION.  
CC PROSITE; PS00291; PRION 1; 1.  
CC PROSITE; PS00706; PRION 2; 1.  
CC Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.  
FT NON\_TER 1 1  
FT SIGNAL <1 15 By similarity.  
FT CHAIN 16 215 Major prion protein.  
FT PROPEP 216 238 Removed in mature form (By similarity).  
FT LIPID 215 215 GPI-anchor amidated serine (By  
FT similarity).  
FT DISULFID 164 199 By similarity.  
FT CARBOHYD 166 166 N-linked (GlcNAc... ) (Potential).  
FT CARBOHYD 182 182 N-linked (GlcNAc... ) (Potential).  
FT DOMAIN 44 76 4 X 8 AA tandem repeats of P-H-G-G-W-G-  
FT Q.  
FT REPEAT 44 52 1.  
FT REPEAT 53 60 2.  
FT REPEAT 61 68 3.  
FT REPEAT 69 76 4.  
FT NON\_TER 238 238  
SQ SEQUENCE 238 AA; 26123 MW; 5F59A3EBC3E3531B CRC64;  
Query Match 99.6%; Score 244; DB 1; Length 238;  
Best Local Similarity 97.8%; Pred. No. 1.1e-22;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 NQNFVHDCVNITIKQHTVTTTGGKFTETDVKMERVVEQMCVT 46  
Db 156 NQNFVHDCVNITIKQHTVTTTGGKFTETDVKMERVVEQMCIT 201  
RESULT 15  
PRIO THEGE STANDARD; PRT; 238 AA.  
ID -PRIO THEGE  
AC Q95270;

DT 01-NOV-1997 (Rel. 35, Created)  
DT 01-NOV-1997 (Rel. 35, Last sequence update)  
DE 03-JUL-2004 (Rel. 44, Last annotation update)  
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).  
GN Name=PRNP; Synonyms=PRP;  
OS Theropithecus gelada (Gelada baboon).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;  
OC Cercopithecinae; Theropithecus.  
OX NCBI\_TaxID=9565;  
RN [1]  
RP SEQUENCE FROM N.A. Dekker J.T., Goudsmit J.;  
RA van der Kuyl A.C., Dekker J.T., Goudsmit J.;  
RT "Evidence for an increased substitution rate of the hominoid prion  
RT protein gene during the period of brain expansion.";  
RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.  
CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the  
CC host genome and is expressed both in normal and infected cells.  
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called  
CC "rods".  
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
CC -1- DISEASE: PrP is found in high quantity in the brain of humans and  
CC animals infected with the degenerative neurological diseases kuru,  
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome  
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
CC transmissible mink encephalopathy (TME), etc.  
CC -1- SIMILARITY: Belongs to the prion family.  
CC  
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CC  
CC EMBL; U75383; AAB50630.1; -;  
CC HSP; P23907; IG04.  
CC InterPro: IPR000817; Prion.  
CC Pfam; PF00377; Prion; 1.  
CC PRINTS; PR00341; PRION.  
CC PROSITE; PS00291; PRION 1; 1.  
CC PROSITE; PS00706; PRION 2; 1.  
CC Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;  
FT NON\_TER 1 1  
FT SIGNAL <1 15 By similarity.  
FT CHAIN 16 215 Major prion protein.  
FT PROPEP 216 >238 Removed in mature form (By similarity).  
FT DISULFID 164 199 By similarity.  
FT LIPID 215 215 GPI-anchor amidated serine (By  
FT similarity).  
FT CARBOHYD 166 166 N-linked (GlcNAc... ) (Potential).  
FT CARBOHYD 182 182 N-linked (GlcNAc... ) (Potential).  
FT DOMAIN 44 83 4 X 8 AA tandem repeats of P-H-G-G-W-G-  
FT Q.  
FT REPEAT 44 52 1.  
FT REPEAT 53 60 2.  
FT REPEAT 61 68 3.  
FT REPEAT 69 76 4.  
FT NON\_TER 238 238  
SQ SEQUENCE 238 AA; 26104 MW; 5F59BFF602243EDB CRC64;  
Query Match 99.6%; Score 244; DB 1; Length 238;  
Best Local Similarity 97.8%; Pred. No. 1.1e-22;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 NQNFVHDCVNITIKQHTVTTTGGKFTETDVKMERVVEQMCVT 46  
Db 156 NQNFVHDCVNITIKQHTVTTTGGKFTETDVKMERVVEQMCIT 201

Search completed: July 26, 2005, 11:59:30  
Job time : 81 secs

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OM protein - protein search, using sw model

Run on: July 26, 2005, 11:38:22 ; Search time 91.5 Seconds  
(without alignment)  
194.437 Million cell updates/sec

Title: US-10-031-975-24\_COPY\_176\_221

Perfect score: 250

Sequence: 1 VYRPVDQYSNQNFFVHDCV.....HTVTTTKGFNTETDIKMM 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_16Dec04:\*

- 1: Geneseqp1980s:\*
- 2: Geneseqp1990s:\*
- 3: Geneseqp2000s:\*
- 4: Geneseqp2001s:\*
- 5: Geneseqp2002s:\*
- 6: Geneseqp2003as:\*
- 7: Geneseqp2003bs:\*
- 8: Geneseqp2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	250	100.0	117	5	ABG94358
2	250	100.0	117	5	ABG80670
3	250	100.0	117	7	ADD24197
4	250	100.0	217	3	AB073117
5	250	100.0	217	3	AB073128
6	250	100.0	219	2	AAW70261
7	250	100.0	219	2	AAW93571
8	250	100.0	256	6	ABP57900
9	250	100.0	263	2	AAW85716
10	250	100.0	263	2	AAW69661
11	250	100.0	263	2	AAW85902
12	250	100.0	263	4	AAW65854
13	250	100.0	263	5	ABP51788
14	250	100.0	263	6	ABU58869
15	250	100.0	263	6	AAE33228
16	250	100.0	263	8	ADK15534
17	250	100.0	263	8	ADJ10164
18	250	100.0	264	2	AAW07995
19	250	100.0	264	4	AAW61769
20	250	100.0	264	4	AAW82113
21	250	100.0	264	5	ABB04424
22	250	100.0	264	5	AAE15604
23	250	100.0	264	5	ABU07876
24	250	100.0	264	6	AAE36754
25	250	100.0	264	6	ABP55139

26	250	100.0	264	6	ABR42798
27	250	100.0	264	6	ABR42801
28	250	100.0	264	7	ADD24187
29	250	100.0	264	7	ADE66886
30	250	100.0	264	7	ADE06743
31	250	100.0	264	8	ADH44555
32	250	100.0	264	8	ADK15535
33	250	100.0	264	8	ADL15208
34	250	100.0	265	5	AAM50889
35	249	99.6	264	4	AAW72361
36	247	98.8	264	4	AAW72364
37	246	98.4	264	7	ADE86899
38	245	98.0	124	5	ABG94340
39	245	98.0	124	5	ABG80652
40	245	98.0	124	7	ADD24200
41	245	98.0	208	3	AAW07316
42	245	98.0	208	3	AAW07327
43	245	98.0	208	7	ADJ66133
44	245	98.0	211	4	AAW30801
45	245	98.0	225	6	ABR42793

## ALIGNMENTS

## RESULT 1

ABG94358  
ID ABG94358 standard; protein; 117 AA.

XX AC ABG94358;

DT 06-AUG-2003 (revised)

DT 10-DEC-2002 (first entry)

XX DE Modified bovine prion protein fragment.

XX Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;  
cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;  
vaccine; infectious disease.

XX Bos taurus.

OS WO200256905-A2.

XX PD 25-JUL-2002.

XX PF 21-JAN-2002; 2002WO-IB000166.

XX PR 19-JAN-2001; 2001US-0262379P.

PR 04-MAY-2001; 2001US-0288549P.

PR 05-OCT-2001; 2001US-0326998P.

PR 07-NOV-2001; 2001US-0331045P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;

PI Piossek C;

XX WPI; 2002-627351/67.

XX Molecular antigen array used in the production of vaccines for infectious diseases.

XX Disclosure; Page 441; 441pp; English.

XX This invention relates to a novel ordered and repetitive antigen array used in the production of vaccines for infectious diseases. The invention also discloses a composition comprising a non-natural molecular scaffold comprising a core particle selected from a core particle of a non-natural origin and a core particle of natural origin and an organiser comprising at least one first attachment site, where the organiser is connected to the core particle by at least one covalent bond. Also disclosed is an antigen or antigenic determinant with at least one second attachment

CC site, where the antigen or antigenic determinant is amyloid beta peptide  
 CC (Abeta1-42) or its fragment and where the second attachment site is  
 CC selected from an attachment site not naturally occurring with the antigen  
 CC or antigenic determinant and an attachment site naturally occurring with  
 CC the antigen or antigenic determinant, where the second attachment site is  
 CC capable of association through at least one non-peptide bond to the first  
 CC attachment site and where the antigen or antigenic determinant and the  
 CC scaffold interact through the association to form an ordered and  
 CC repetitive antigen array. The invention also comprises a coat protein  
 CC capable of forming a capsid which comprises mutant beta coat proteins  
 CC having an amino acid sequence selected from five amino acid sequences  
 CC fully defined in the specification. The compounds of the invention may  
 CC have antimicrobial, antiallergic, immunomodulatory, cytostatic,  
 CC antiviral, antidiabetic, or hypoglycaemic activities and may be used in  
 CC immunisation and as a vaccine. The present sequence represents a protein  
 CC sequence used to create the compositions of the invention. (Updated on 06  
 CC -AUG-2003 to correct OS field.)  
 XX  
 SQ Sequence 117 AA;

Query Match 100.0%; Score 250; DB 5; Length 117;  
 Best Local Similarity 100.0%; Pred. No. 8.4e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 Db |||||  
 40 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 85

# RESULT 2 ABG80670

ID ABG80670 standard; protein; 117 AA.

AC ABG80670;

XX 29-NOV-2002 (first entry)

DE Bovine prion protein/cysteine-containing peptide fusion protein.

XX Molecular antigen array; vaccine; antigen; antimicrobial; mutant;  
 KW molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutein;  
 KW graft versus host disease; IGE-mediated allergic reaction; anaphylaxis;  
 KW adult respiratory distress syndrome; ARDS; Crohn's disease;  
 KW allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;  
 KW Grave's disease; systemic lupus erythematosus; osteoporosis;  
 KW inflammatory immune disease; myasthenia gravis; multiple sclerosis;  
 KW immunoproliferative disease lymphadenopathy; Alzheimer's disease;  
 KW angioimmunoproliferative lymphadenopathy; immunoblastic lymphadenopathy;  
 KW rheumatoid arthritis; diabetes; infectious disease; factor Xa;  
 KW enterokinase; cysteine-containing linker.

XX Bos taurus.  
 OS Synthetic.

XX WO200256907-A2.

XX 25-JUL-2002.

XX 21-JAN-2002; 2002WO-IB000168.

XX 19-JAN-2001; 2001US-0262379P.

PR 04-MAY-2001; 2001US-0288549P.

PR 05-OCT-2001; 2001US-0326998P.

PR 07-NOV-2001; 2001US-0331045P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.  
 PA (NOVS) NOVAETIS PHARMA AG.

PA (MAUR) MAURER P.

PA (LECH) LECHNER F.

PA (ORTW) ORTMANN R.

PA (LUEO) LUEOEND R.

PA (STAU) STAUFENBIEL M.

PA (FREY) FREY P.

XX Maurer P, Lechner F, Ortmann R, Lueoend R, Staufenbiel M, Frey P;  
 PI Renner WA, Bachmann M, Tissot A, Sabbel P, Piossek C;  
 XX WPI; 2002-636514/68.  
 XX Molecular antigen array used in the production of vaccines for infectious  
 PT diseases.

PS Disclosure; Page 418; 418pp; English.

XX The invention relates to a composition comprising: (a) a non-natural  
 CC molecular scaffold comprising: (i) a core particle selected from: (1) a  
 CC core particle of a non-natural origin; and (2) a core particle of natural  
 CC origin; and (ii) an organiser comprising at least one first attachment  
 CC site, where the organiser is connected to the core particle by at least  
 CC one covalent bond; (b) an antigen or antigenic determinant with at least  
 CC one second attachment site, where the antigen or antigenic determinant is  
 CC amyloid beta peptide (Abeta 1-42) or its fragment, and where the second  
 CC attachment site is selected from: (i) an attachment site not naturally  
 CC occurring with the antigen or antigenic determinant; and (ii) an  
 CC attachment site naturally occurring with the antigen or antigenic  
 CC determinant, where the second attachment site is capable of association  
 CC through at least one non-peptide bond to the first attachment site; and  
 CC where the antigen or antigenic determinant and the scaffold interact  
 CC through the association to form an ordered and repetitive antigen array.  
 CC Also included is a process for producing a non-naturally occurring  
 CC ordered and repetitive antigen array. The composition is used in  
 CC immunisation and as a vaccine for diseases such as influenza, graft  
 CC versus host disease, IGE-mediated allergic reactions, anaphylaxis, adult  
 CC respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,  
 CC acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease,  
 CC systemic lupus erythematosus, inflammatory immune diseases, myasthenia  
 CC gravis, immunoproliferative disease lymphadenopathy,  
 CC angioimmunoproliferative lymphadenopathy, immunoblastic lymphadenopathy,  
 CC rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease,  
 CC osteoporosis and infectious diseases. The present sequence is a modified  
 CC antigen for use in the array of the invention. The antigen is modified to  
 CC possess a cleavage site (enterokinase or factor Xa) and a Cysteine-  
 CC containing N- or C-terminal linker peptide which serves as the attachment  
 CC point to a virus like particle or bacterial protein (the scaffold  
 CC protein)

XX Sequence 117 AA;

Query Match 100.0%; Score 250; DB 5; Length 117;  
 Best Local Similarity 100.0%; Pred. No. 8.4e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 Db |||||  
 40 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 85

## RESULT 3 ADD24197

ID ADD24197 standard; protein; 117 AA.

XX ADD24197;

XX 15-JAN-2004 (first entry)

DE Modified bovine prion protein amino acid sequence.

XX vaccine composition; virus-like particle; core particle;  
 KW first attachment site; antigen; antigenic determinant; prion protein;  
 KW PrP; PrP peptide; vaccine; neuroprotective; antiinflammatory;  
 KW prion disease; Bovine Spongiform Encephalopathy; BSE,  
 KW Creutzfeldt-Jakob Disease; prion.

XX Synthetic.  
 OS prion.

PN WO2003059386-A2.  
 XX 24-JUL-2003.  
 PD 17-JAN-2003; 2003WO-EP000460.  
 XX 18-JAN-2002; 2002US-00050902.  
 XX 21-JAN-2002; 2002WO-IB000166.  
 PR 08-JUL-2002; 2002US-0393725P.  
 PR 18-JUL-2002; 2002US-0396590P.  
 XX (CYTO-) CYTOS BIOTECHNOLOGY AG.  
 PA Bachmann M, Maurer P, Pelliccioli E, Renner WA;  
 XX WPI; 2003-598483/56.  
 XX A vaccine composition for preventing or treating prion diseases (e.g.  
 FT Creutzfeldt-Jakob disease) comprises a virus-like particle (e.g. RNA-  
 FT phage) and at least one prion protein or peptide bound to the virus-like  
 FT particle.  
 XX Disclosure; SEQ ID NO 90; 246pp; English.  
 PS This invention relates to a novel vaccine composition comprising a virus-  
 CC like or a core particle with at least one first attachment site and at  
 CC least one antigen or antigenic determinant that is a prion protein (PrP)  
 CC or its dimer, or a PrP peptide, the antigen or antigenic determinant  
 CC being bound to the virus-like or core particle. The vaccine of the  
 CC invention may have neuroprotective or antiinflammatory activity. The  
 CC composition is useful as a medicament or in manufacturing a medicament  
 CC for the treatment or prevention of prion diseases. The prion diseases may  
 CC include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob  
 CC Disease. The present sequence is the amino acid sequence of a modified  
 CC bovine prion protein (PrP) which may be used during the creation of the  
 CC vaccine composition of the invention.  
 XX SQ Sequence 117 AA;  
 Query Match 100.0%; Score 250; DB 7; Length 117;  
 Best Local Similarity 100.0%; Pred. No. 8.4e-24;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 OY 1 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 DB 40 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 85  
 RESULT 4  
 AAB07317  
 ID AAB07317 standard; protein; 217 AA.  
 XX AAB07317;  
 AC AAB07317;  
 XX 12-SEP-2003 (revised)  
 DT 17-OCT-2000 (first entry)  
 XX Cattle prion protein sequence.  
 XX Cattle; prion protein; transmissible spongiform encephalopathy;  
 KW bovine spongiform encephalopathy; BSE diagnosis; TSE; PrP.  
 XX Bos taurus.  
 OS Bos taurus.  
 XX Key Location/Qualifiers  
 FH 37..79  
 FT /note= "Repeat region consisting of tandem repeats of  
 FT repeat unit: PHGGGWGQ (AAB07319)"  
 FT Disulfide-bond 166..201  
 FT Modified-site 217  
 FT /note= "C-terminal phospho-inositol glycolipid membrane  
 FT anchor (-GPI)"  
 XX

PN WO200029850-A1.  
 XX 25-MAY-2000.  
 PD 27-OCT-1999; 99WO-FI000897.  
 XX 17-NOV-1998; 98FI-00002481.  
 XX (WALL-) WALLAC OY.  
 PA (BBSR-) BBSRC OFFICE.  
 XX Hope J, Barnard GJR, Birkett CR;  
 XX WPI; 2000-387880/33.  
 XX Novel immunoassay for prion protein, used for the determination of  
 PT transmissible spongiform encephalopathies in bovines.  
 XX Disclosure; Page 42-43; 50pp; English.  
 PS The present sequence is the cattle prion protein (PrP) sequence.  
 CC Conversion of the normal cellular form of PrP into an aggregated,  
 CC insoluble isoform is implicated in the pathogenesis of transmissible  
 CC Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine  
 CC Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease (CJD)  
 CC and Gerstmann-Strausler-Sheinker syndrome (GSS). The concentration of  
 CC this protein in body fluid or tissue samples may be measured by an assay  
 CC of the present invention, in which a PrP epitope is captured by an  
 CC antibody, which is then detected. The presence of PrP indicates BSE. PrP  
 CC epitopes (AAB07320-B07326) are derived from the protease resistant core  
 CC of PrP that is occluded when the PrP is in an aggregated state. (Updated  
 CC on 12-SEP-2003 to standardise OS field)  
 XX SQ Sequence 217 AA;  
 Query Match 100.0%; Score 250; DB 3; Length 217;  
 Best Local Similarity 100.0%; Pred. No. 1.7e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 OY 1 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 DB 148 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 193  
 RESULT 5  
 AAB07328  
 ID AAB07328 standard; protein; 217 AA.  
 XX AAB07328;  
 AC AAB07328;  
 XX 12-SEP-2003 (revised)  
 DT 17-OCT-2000 (first entry)  
 XX Cattle prion protein sequence.  
 XX Cattle; prion protein; transmissible spongiform encephalopathy;  
 KW bovine spongiform encephalopathy; TSE diagnosis; PrP.  
 XX Bos taurus.  
 OS Bos taurus.  
 XX Key Location/Qualifiers  
 FH 37..79  
 FT /note= "Repeat region consisting of tandem repeats of  
 FT repeat unit: PHGGGWGQ (AAB07319)"  
 FT Disulfide-bond 166..201  
 FT Modified-site 217  
 FT /note= "C-terminal phospho-inositol glycolipid membrane  
 FT anchor (-GPI)"  
 XX WO200029849-A1.  
 XX 25-MAY-2000..  
 PD 25-MAY-2000..  
 XX

PF 27-OCT-1999; 99WO-FI000896.  
 XX 17-NOV-1998; 98FI-00002480.  
 PR (WALL-) WALLAC OY.  
 PA (BBSR-) BBSRC OFFICE.  
 PI Hope J, Barnard GJR, Birkett CR;  
 XX WPI; 2000-399778/34.  
 DR New immunoassay for prion protein, used for determination of  
 PT transmissible spongiform encephalopathies in mammals, comprises specific  
 PT capture antibody.  
 XX Disclosure; Page 42-43; 50pp; English.  
 PS The present sequence is the cattle prion protein (PrP) sequence.  
 CC Conversion of the normal cellular form of PrP into an aggregated,  
 CC insoluble isoform is implicated in the pathogenesis of Transmissible  
 CC Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine  
 CC Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease (CJD)  
 CC and Gerstmann-Strausler-Scheinker syndrome (GSS). The concentration of  
 CC this protein in body fluid or tissue samples may be measured by an assay  
 CC of the present invention, in which a PrP epitope is captured by an  
 CC antibody, which is then detected. The presence of PrP indicates TSE. PrP  
 CC epitopes (AA07320-807326) are derived from the protease resistant core  
 CC of PrP that is occluded when the PrP is in an aggregated state. (Updated  
 CC on 12-SEP-2003 to standardise OS field)  
 XX Sequence 217 AA;

Query Match 100.0%; Score 250; DB 3; Length 217;  
 Best Local Similarity 100.0%; Pred. No. 1.7e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 VYRPVDQYSNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 DB 148 VYRPVDQYSNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 193

RESULT 6  
 AAW70261  
 ID AAW70261 standard; protein; 219 AA.  
 AC AAW70261;  
 XX 13-NOV-1998 (first entry)  
 DT Bovine prion protein.  
 DE Prion protein; PrP; cow; disease-specific prion protein; scrapie; Kuru;  
 KW prion disease detection; bovine spongiform encephalopathy; therapy;  
 KW Creutzfeldt-Jakob disease; Gerstmann-Strausler-Scheinker syndrome;  
 KW Fatal Familial Insomnia.  
 OS Bos taurus.  
 XX EP861900-A1.  
 PN 02-SEP-1998.  
 PD 21-FEB-1997; 97EP-00102837.  
 XX 21-FEB-1997; 97EP-00102837.  
 PF (ERZI-) ERZIEHUNGSDIREKTION CANTON ZURICH.  
 PR Korth C, Stierli B, Moser M, Streit P, Oesch B;  
 XX WPI; 1998-449112/39.  
 DR N-PSDB; AAV33005.  
 CC

PT New monoclonal antibodies specifically bind to disease-specific prion  
 PT proteins - used to diagnose, prevent and treat prion diseases e.g.  
 PT bovine, spongiform encephalopathy, scrapie and Creutzfeldt-Jakob disease.  
 XX Disclosure; Page 20-21; 35pp; English.  
 PS This sequence represents the bovine prion protein (PrP). The protein is  
 CC targeted by the antibody of the invention, which is a monoclonal antibody  
 CC or fragment capable of specifically binding to native and denatured  
 CC normal (PrPc) and disease-specific prion protein (PrPsc) in an antigen-  
 CC antibody complex. The antibodies that immunoreact with disease-specific  
 CC prion proteins are used in test kits for the diagnosis of prion diseases  
 CC and to detect disease-specific PrP in biological material by treatment of  
 CC a probe of the material with proteinase K and then with the monoclonal  
 CC antibody. The monoclonal antibodies are used for the prevention and  
 CC treatment of prion diseases and to clear biological material from prions.  
 CC The antibodies are used to diagnose, treat and prevent e.g. bovine  
 CC spongiform encephalopathy, scrapie in sheep and Creutzfeldt-Jakob  
 CC disease, Gerstmann-Strausler-Scheinker syndrome, Fatal Familial Insomnia  
 CC and Kuru in humans. The diagnostic method allows mass screening of  
 CC infected cattle tissue at a subclinical stage and reduces possible human  
 CC health risks  
 XX Sequence 219 AA;

Query Match 100.0%; Score 250; DB 2; Length 219;  
 Best Local Similarity 100.0%; Pred. No. 1.8e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 VYRPVDQYSNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 DB 149 VYRPVDQYSNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 194

RESULT 7  
 AAW93571  
 ID AAW93571 standard; protein; 219 AA.  
 AC AAW93571;  
 XX 17-JUN-1999 (first entry)  
 DT Bovine rbPrP protein.  
 DE Prion protein; PrP; rbPrP; disease specific isoform; PrP(Sc); vaccine;  
 KW treatment; diagnosis; Scrapie; BSE; Kuru; Creutzfeldt-Jacob disease;  
 KW detection.  
 KW Bos taurus.  
 OS DE19741607-A1.  
 PN 25-MAR-1999.  
 PD 20-SEP-1997; 97DE-01041607.  
 XX 20-SEP-1997; 97DE-01041607.  
 PR (PRIO-) PRIONICS AG.  
 PA Moser M, Oesch B, Korth C;  
 PI WPI; 1999-205964/18.  
 XX New polypeptides comprising prion protein sequences - useful for  
 PT diagnosis or treatment of prion diseases e.g. Scrapie, BSE and  
 PT Creutzfeldt-Jacob disease.  
 XX Claim 13; Page 6-7; 12pp; German.  
 PS This invention describes a synthetic polypeptide comprising at least one  
 CC "defined" PrP (prion protein) sequence or sequences derived therefrom  
 CC that are recognised by a disease specific isoform of PrP, e.g. PrP(Sc),  
 CC

CC binding substances. The new prion protein polypeptides are useful in  
 CC vaccines and pharmaceuticals for treatment of, and as diagnostic agents  
 CC for diagnosis of Scrapie, BSE, Kuru and Creutzfeldt-Jacob disease. The  
 CC polypeptides are also useful in pharmaceutical or chemical libraries for  
 CC detection of PrP(Sc)-specific agents

XX SQ Sequence 219 AA;

Query Match 100.0%; Score 250; DB 2; Length 219;  
 Best Local Similarity 100.0%; Pred. No. 1.8e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 VYRPVDQYSQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 |||||  
 Db 149 VYRPVDQYSQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 194  
 |||||

#### RESULT 8

ABP57900  
 ID ABP57900 standard; protein; 256 AA.

XX AC ABP57900;

DT 12-FEB-2003 (first entry)

DE Bovine BSE-resistant prion protein.

KW Transmissible spongiform encephalopathy; neuroprotective; prion protein;  
 KW bovine spongiform encephalopathy; transgenic; BSE; bovine; cervid; PrP;  
 KW TSE.

XX OS Bos taurus.

XX PN WO200279416-A2.

XX FD 10-OCT-2002.

XX PF 28-MAR-2002; 2002WO-US009652.

XX PR 30-MAR-2001; 2001US-0280549P.

XX PA (TEXA ) UNIV TEXAS A & M SYSTEM.

XX PI Dunne PW, Piedrahita J;

XX DR WPI; 2003-092895/08.

XX DR N-PSDB; ABV99701.

XX New transgenic bovine and cervid useful for producing animals which are  
 PT resistant to bovine spongiform encephalopathy and transmissible  
 PT spongiform encephalopathy disease, comprise a transgene encoding a mutant  
 PT PrP polypeptide.

XX PS Claim 1; Fig 6; 98pp; English.

XX The invention relates to a novel transgenic bovine/cervid comprising a  
 CC transgene encoding a mutant prion protein (PrP) polypeptide, in which a  
 CC substitution has been made at position 171 of the sequence, which renders  
 CC the bovine/cervid resistant to bovine spongiform encephalopathy (BSE) and  
 CC transmissible spongiform encephalopathy (TSE) disease, respectively. The  
 CC transgene of the invention has neuroprotective activity. The method is  
 CC useful for producing a transgenic bovine or cervid resistant to BSE and  
 CC TSE diseases. The bovine prion gene is useful for producing transgenic  
 CC cattle exhibiting resistance to bovine spongiform encephalopathy. The  
 CC sequence represents the mutant bovine PrP polypeptide

XX SQ Sequence 256 AA;

Query Match 100.0%; Score 250; DB 6; Length 256;  
 Best Local Similarity 100.0%; Pred. No. 2.1e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 VYRPVDQYSQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46

Db 164 VYRPVDQYSQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 209  
 |||||

#### RESULT 9

AAR86716  
 ID AAR86716 standard; protein; 263 AA.

XX AC AAR86716;

DT 15-OCT-1996 (first entry)

XX DE Bovine prion protein, BoPrP.

XX Chimeric gene; chimeric prion; transgenic animal; diagnosis;  
 KW spongiform encephalopathy; PrP; central nervous system; CNS;  
 KW Creutzfeldt-Jacob disease; CJD; BSE.

XX OS Bos taurus.

XX PN WO9531466-A1.

XX PD 23-NOV-1995.

XX PF 10-APR-1995; 95WO-US004426.

XX PR 13-MAY-1994; 94US-00242188.

XX PA (REGC ) UNIV CALIFORNIA.

XX PI Prusiner SB, Scott MR, Telling G;

XX WPI; 1996-010868/01.

XX Chimeric prion protein gene - for formation of a transgenic animal  
 PT susceptible to prion infection by prion(s) normally specific for a  
 PT different species.

XX PS Disclosure; Page 42-43; 65pp; English.

XX Pathogenic prions in a sample can be detected by injecting the sample to  
 CC be tested into a transgenic mouse. The mouse genome includes a chimeric  
 CC PrP gene in which the gene includes a portion of a gene of the animal  
 CC (e.g. cattle) in danger of infection from prions in the sample. Preferred  
 CC transgenic mice express a chimeric prion protein (PrP) in which a segment  
 CC of the mouse PrP, MoPrP, is replaced with the corresponding bovine PrP  
 CC sequence

XX SQ Sequence 263 AA;

Query Match 100.0%; Score 250; DB 2; Length 263;  
 Best Local Similarity 100.0%; Pred. No. 2.2e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 VYRPVDQYSQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 |||||

Db 171 VYRPVDQYSQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216  
 |||||

#### RESULT 10

AAW69661  
 ID AAW69661 standard; protein; 263 AA.

XX AC AAW69661;

XX DT 25-MAR-2003 (revised)

XX DT 19-OCT-1998 (first entry)

XX DE Bovine prion protein BoPrP.

XX Bovine; cow; prion protein; PrP; transgenic animal; artificial gene;  
 KW Creutzfeldt Jakob disease; CJD; neurodegenerative disease; human.

XX

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OS Bos sp.
XX US5792901-A.
XX 11-AUG-1998.
XX 30-JUL-1996; 96US-00692892.
XX 13-MAY-1994; 94US-00242188.
XX 31-JUL-1995; 95US-00509261.
XX 31-AUG-1995; 95US-00521992.
XX (REGC ) UNIV CALIFORNIA.
XX Scott MR, Telling GC, Prusiner SB;
XX WPI; 1998-456207/39.
XX Transgenic mouse with altered PrP gene - for detecting disease-causing
XX prions.
XX Example 8; Fig 4; 37pp; English.
XX A transgenic mouse has been developed which comprises a genome in which
XX both alleles of an endogenous PrP (prion protein) gene of the mouse are
XX ablated, the genome containing operatively inserted all exogenous non-
XX mouse PrP gene. The mouse is susceptible to infection with prions which
XX generally only infect a genetically diverse mammal due to the presence of
XX the exogenous PrP gene and ablated endogenous PrP gene. It exhibits
XX symptoms of prion disease within 200 days or less after inoculation with
XX prions which generally only infect a genetically diverse mammal. Also
XX described in the present invention are: (A) a method of producing the
XX transgenic mouse; and (B) determining the presence of infectious prions
XX in a sample obtained from a bovine. The transgenic mouse is used to
XX detect for Creutzfeldt Jakob disease (CJD) a fatal neurodegenerative
XX disease of humans caused by prions. The present sequence represents
XX bovine prion protein (BoPrP), from the present invention. (Updated on 25-
XX MAR-2003 to correct PF field.)
XX
XX Sequence 263 AA;
Query Match 100.0%; Score 250; DB 2; Length 263;
Best Local Similarity 100.0%; Pred. No. 2.2e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 VYRPPVDQYSNQNNFVHDCVNITVKEHTVTTTNGENFTETDIKMM 46
Db 171 VYRPPVDQYSNQNNFVHDCVNITVKEHTVTTTNGENFTETDIKMM 216
RESULT 11
AAW85902
ID AAW85902 standard; peptide; 263 AA.
XX AC AAW85902;
XX 12-FEB-1999 (first entry)
XX Bovine prion protein (PrP) sequence.
XX PrP; PrP(Sc); scrapie; isoform; antibody; prion; CJD; screening;
XX Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;
XX cosmetic; therapeutic; bovine.
XX Bos sp.
XX OS US5846533-A.
XX 08-DEC-1998.
XX 13-SEP-1996; 96US-00713939.
XX 14-SEP-1995; 95US-00528104.
XX
XX (REGC ) UNIV CALIFORNIA.
XX (SCRI ) SCRIPPS RES INST.
XX Prusiner SB, Williamson RA, Burton DR;
XX WPI; 1999-058996/05.
XX Antibody specific for scrapie isoform of prion protein - useful for
XX diagnosis and therapy.
XX Disclosure; Col 43-44; 58pp; English.
XX This represents a bovine prion protein (PrP) sequence. The invention
XX relates to an antibody that is capable of binding to native PrP(Sc), the
XX scrapie isoform of PrP. The antibody is produced by a method that
XX comprises synthesising a library of antibodies on phages, contacting the
XX phages with a composition containing PrP proteins, isolating phages that
XX bind to native PrP(Sc) in situ, obtaining an antibody from the phages,
XX and optionally analysing the phages to determine a nucleic acid sequence
XX encoding an amino acid sequence to which the native PrP(Sc) binds. The
XX antibody is used to detect disease-associated PrP, especially in
XX Creutzfeldt-Jakob disease (CJD) and distinguish it from normal PrP. They
XX can also be used to neutralise the infectivity of PrP(Sc). Assays using
XX the antibodies can be used to screen for disease-associated PrP in
XX pharmaceutical products, foods and cosmetics or for therapeutic purposes
XX
XX Sequence 263 AA;
Query Match 100.0%; Score 250; DB 2; Length 263;
Best Local Similarity 100.0%; Pred. No. 2.2e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 VYRPPVDQYSNQNNFVHDCVNITVKEHTVTTTNGENFTETDIKMM 46
Db 171 VYRPPVDQYSNQNNFVHDCVNITVKEHTVTTTNGENFTETDIKMM 216
RESULT 12
AAG65854
ID AAG65854 standard; protein; 263 AA.
XX AC AAG65854;
XX 11-FEB-2002 (first entry)
XX Bovine prion protein (PrP) sequence.
XX PrP; prion protein; Creutzfeldt-Jakob disease; familial insomnia; PrP-Sc;
XX scrapie; Gerstmann-Strassler-Scheinker disease.
XX Bos sp.
XX OS US6290954-B1.
XX 18-SEP-2001.
XX 06-MAR-1998; 98US-00036579.
XX 14-SEP-1995; 95US-00528104.
XX 13-SEP-1996; 96US-00713939.
XX (SCRI ) SCRIPPS RES INST.
XX Prusiner SB, Williamson RA, Burton DR;
XX WPI; 2001-637939/73.
XX Detecting a scrapie isoform of the prion protein (PrP-Sc) in a source,
XX particularly useful for detecting e.g. Creutzfeldt-Jakob disease or
XX Gerstmann-Strassler-Scheinker disease, by contacting the source with PrP-
XX Sc antibodies.

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PS Disclosure; Fig 3; 58pp; English.

XX The invention provides a method for detecting a scrapie isoform of the  
 CC prion protein (PrP-Sc) in a source. The method involves contacting the  
 CC source suspected of containing native PrP-Sc with a diagnostic amount of  
 CC an antibody characterized by its ability to bind to native PrP-Sc in  
 CC situ. The method is useful for detecting PrP-Sc in a source, which is  
 CC particularly useful for detecting Creutzfeldt-Jakob disease, fatal  
 CC familial insomnia or Gerstmann-Strassler-Scheinker disease. The present  
 CC sequence represents the bovine PrP sequence

XX Sequence 263 AA;

Query Match 100.0%; Score 250; DB 4; Length 263;  
 Best Local Similarity 100.0%; Pred. No. 2.2e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 ||||||||||||||||||||||||||||||||||||||||||||  
 Db 171 VYRPVDQYSNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216

RESULT 13

ABP51788  
 ID ABP51788 standard; protein; 263 AA.

XX AC ABP51788;

XX DT 03-OCT-2002 (first entry)

XX DE Bovine prion protein (PrP) SEQ ID NO:3.

XX KW Prion protein; PrP; scrapie; PrPSc; prion disease; immunoassay;  
 KW detection.

XX OS Bos sp.

XX PN US6372214-B1.

XX PD 16-APR-2002.

XX PF 13-APR-2000; 2000US-00550374.

XX PR 14-SEP-1995; 95US-00528104.

XX PR 13-SEP-1996; 96US-00713939.

XX PR 06-MAR-1998; 98US-00036579.

XX PA (REGC ) UNIV CALIFORNIA.

XX PA (SCRI ) SCRIPPS RES INST.

XX PI Prusiner SB, Williamson RA, Burton DR;

XX DR WPI; 2002-433675/46.

XX Immunoassays for detecting scrapie isoforms of prion protein (PrPSc) and  
 PT for purifying PrPSc from samples, useful e.g. in diagnosing PrPSc disease  
 PT and testing pharmaceuticals for contamination.

XX Disclosure; Fig 3; 58pp; English.

XX The present invention describes methods for detecting scrapie isoforms of  
 CC prion protein (PrPSc) infection in dead animals, purifying materials  
 CC suspected of containing PrPSc proteins and treating materials, using  
 CC antibodies specific for PrPSc. Also described: (1) method of determining  
 CC PrPSc infection in a dead animal, comprising: (a) extracting tissue from  
 CC an animal that has died; (b) contacting the tissue with an antibody  
 CC characterised by its ability to bind to native PrPSc in situ (the  
 CC antibody binds to a form of PrPSc specific to the animal that has died);  
 CC and (c) determining if the antibody has bound to PrPSc (the presence of  
 CC PrPSc in the tissue is indicative of PrPSc infection); (2) a method of  
 CC purifying a material suspected of containing a PrPSc protein, comprising:  
 CC (a) contacting the material with an antibody (characterized by its  
 CC ability to bind native PrPSc in situ) which is bound to a support surface

CC ; and (b) removing material not bound to the antibody; (3) a method of  
 CC treating a material, comprising applying (to the material) an antibody  
 CC that binds native PrPSc in situ. The methods are used for diagnosing and  
 CC detecting prion disease (scrapie) in dead animal tissue (i.e.  
 CC immunoassays), for separating PrPSc proteins from biological samples  
 CC (i.e. immunoprecipitation) and for treating materials. The present  
 CC sequence represents the bovine prion protein (PrP) which is given in the  
 CC exemplification of the present invention

XX Sequence 263 AA;

Query Match 100.0%; Score 250; DB 5; Length 263;  
 Best Local Similarity 100.0%; Pred. No. 2.2e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 ||||||||||||||||||||||||||||||||||||||||||||  
 Db 171 VYRPVDQYSNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216

RESULT 14

ABU58869  
 ID ABU58869 standard; protein; 263 AA.

XX AC ABU58869;

XX DT 15-APR-2003 (first entry)

XX DE Bovine prion protein (PrP).

XX KW Prion protein; native prion protein; PrPSc; phage display library;  
 KW pharmaceutical; food; cosmetic; prion neutralisation; anti-PrP-antibody;  
 KW scrapie; bovine spongiform encephalopathy; BSE; mad cow disease;  
 KW feline spongiform encephalopathy.

XX OS Bos sp.

XX PN US2002150571-A1.

XX PD 17-OCT-2002.

XX PF 30-AUG-2001; 2001US-00943906.

XX PR 14-SEP-1995; 95US-00528104.

XX PR 13-SEP-1996; 96US-00713939.

XX PR 06-MAR-1998; 98US-00036579.

XX PR 13-APR-2000; 2000US-00550374.

XX PA (PRUS/) PRUSINER S B.

XX PA (WILL/) WILLIAMSON R A.

XX PA (BURT/) BURTON D R.

XX PI Prusiner SB, Williamson RA, Burton DR;

XX DR WPI; 2003-198264/19.

XX Novel antibody that has the ability to specifically bind to native prion  
 PT protein PrPSc in situ, useful for detecting human PrPSc in a source, for  
 PT determining the cause of death of an animal, or in therapy.

XX Disclosure; Fig 3; 36pp; English.

XX The invention describes an antibody (I) that has the ability to  
 CC specifically bind to native prion protein PrPSc in situ, where (I) is  
 CC produced by synthesising a library of antibodies on phage, panning the  
 CC library against a sample by bringing the phage into contact with a  
 CC composition comprising PrP proteins, and isolating phage which bind PrPSc  
 CC protein. (I) is useful for: detecting human PrPSc in a source; for  
 CC determining the cause of death of an animal (e.g. scrapie, bovine  
 CC spongiform encephalopathy (BSE) or mad cow disease and feline spongiform  
 CC encephalopathy); for purifying a material suspected of containing PrPSc  
 CC protein, by contacting the material with a sufficient amount of (I) which  
 CC is bound to a support surface and removing material not bound to (I); for

CC treating a material by adding to the material a sufficient amount of (I)  
 CC to neutralise PrPsc protein infectivity; in an assay to screen for the  
 CC presence of prions (i.e. PrPsc) in products such as pharmaceuticals, food  
 CC or cosmetics, in prion neutralisation to purify a product, in extraction  
 CC of prion proteins, and in therapy. (I) provides a fast, efficient and  
 CC cost effective assay for detecting the presence of PrPsc in a sample, and  
 CC binds to a relatively high percentage of the infectious form of PrPsc.  
 CC This is the amino acid sequence of a prion protein used in the creation  
 CC of an anti-Prion protein-antibody  
 XX  
 XX SQ Sequence 263 AA;

Query Match 100.0%; Score 250; DB 6; Length 263;  
 Best Local Similarity 100.0%; Pred. No. 2.2e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPPVQYSNQNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
 ||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 171 VYRPPVQYSNQNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216

## RESULT 15

AAE33228  
 ID AAE33228 standard; protein; 263 AA.

AC AAE33228;

DT 02-MAY-2003 (first entry)

DE Bovine PrP protein.

XX Bovine; pathogenic; prion protein; PrPsc; Creutzfeldt-Jakob disease;  
 KW kuru; vaccine; neuroprotective; immunostimulant.

XX Bos sp.

XX WO200287502-A2.

XX PD 07-NOV-2002.

XX PF 25-APR-2002; 2002WO-US013346.

XX PR 01-MAY-2001; 2001US-0287971P.

XX PA (REGC ) UNIV CALIFORNIA.

XX PI Prusiner SB, Peretz D, Williamson RA, Burton DR;

XX DR WPI; 2003-140150/13.

XX Composition for clearing a disease conformation of a protein, especially  
 PT PrPsc protein, and treating, e.g., Creutzfeldt-Jakob disease comprises  
 PT molecules, e.g., antibodies which bind and prevent conversion to disease  
 PT conformation.

XX PS Disclosure; Page 37-38; 38pp; English.

XX The invention relates to composition for clearing a disease conformation  
 CC of a protein, especially pathogenic prion protein (PrPsc) from a cell.  
 CC The composition comprises molecules which bind a number of epitopes on a  
 CC first conformation of a protein, where the conversion to a second  
 CC conformation is prevented to allow a call to clear protein in the second  
 CC conformation. The composition is useful for preventing or treating, e.g.,  
 CC kuru or Creutzfeldt-Jakob disease. It is also used as a vaccine. The  
 CC present sequence is bovine PrP protein

XX SQ Sequence 263 AA;

Query Match 100.0%; Score 250; DB 6; Length 263;  
 Best Local Similarity 100.0%; Pred. No. 2.2e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPPVQYSNQNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46

Db 171 VYRPPVQYSNQNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216

Search completed: July 26, 2005, 11:54:04  
 Job time : 92.75 secs



GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 26, 2005, 11:44:13 ; Search time 23.5 Seconds  
(without alignments)  
146.122 Million cell updates/sec

Title: US-10-031-975-24\_COPY\_176\_221

Perfect score: 250

Sequence: 1 VYRPVDQYGNQNFVHDCV.....HTVTTTNGENFTETDIKMM 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Issued Patents AA.\*

1: /cgm2\_6/ptodata/1/iaa/5A COMB.pep.\*

2: /cgm2\_6/ptodata/1/iaa/5B COMB.pep.\*

3: /cgm2\_6/ptodata/1/iaa/6A COMB.pep.\*

4: /cgm2\_6/ptodata/1/iaa/6B COMB.pep.\*

5: /cgm2\_6/ptodata/1/iaa/PTCUS COMB.pep.\*

6: /cgm2\_6/ptodata/1/iaa/backfiles1.pep.\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	250	100.0	219	4	US-09-380-015B-2
2	250	100.0	263	1	US-08-242-188-3
3	250	100.0	263	1	US-08-509-261A-3
4	250	100.0	263	1	US-08-660-626-9
5	250	100.0	263	1	US-08-692-892-3
6	250	100.0	263	2	US-08-713-939A-3
7	250	100.0	263	2	US-08-868-162A-23
8	250	100.0	263	3	US-09-031-168-9
9	250	100.0	263	3	US-09-036-579-3
10	250	100.0	263	3	US-09-550-374-3
11	250	100.0	263	4	US-09-943-906-3
12	250	100.0	263	4	US-09-669-516C-9
13	250	100.0	264	3	US-09-128-450-21
14	250	100.0	264	3	US-09-823-494-21
15	250	100.0	264	4	US-09-431-887-24
16	250	100.0	264	4	US-09-627-218B-11
17	247	98.8	264	4	US-09-431-887-27
18	245	98.0	245	4	US-09-431-887-5
19	245	98.0	245	4	US-09-431-887-15
20	245	98.0	252	4	US-09-431-887-17
21	245	98.0	253	4	US-09-431-887-3
22	245	98.0	253	4	US-09-431-887-7
23	245	98.0	253	4	US-09-431-887-9
24	245	98.0	253	4	US-09-431-887-10
25	245	98.0	253	4	US-09-431-887-11
26	245	98.0	253	4	US-09-431-887-12
27	245	98.0	253	4	US-09-431-887-14

28 245 98.0 253 4 US-09-431-887-16 Sequence 16, Appl  
29 245 98.0 253 4 US-09-431-887-18 Sequence 18, Appl  
30 245 98.0 254 1 US-08-242-188-1 Sequence 1, Appl  
31 245 98.0 254 1 US-08-509-261A-1 Sequence 1, Appl  
32 245 98.0 254 1 US-08-660-626-7 Sequence 7, Appl  
33 245 98.0 254 1 US-08-692-892-1 Sequence 1, Appl  
34 245 98.0 254 2 US-08-713-939A-1 Sequence 1, Appl  
35 245 98.0 254 2 US-08-868-162A-21 Sequence 21, Appl  
36 245 98.0 254 3 US-09-031-168-7 Sequence 7, Appl  
37 245 98.0 254 3 US-09-128-450-19 Sequence 19, Appl  
38 245 98.0 254 3 US-09-128-450-28 Sequence 28, Appl  
39 245 98.0 254 3 US-09-036-579-1 Sequence 1, Appl  
40 245 98.0 254 3 US-09-823-494-19 Sequence 19, Appl  
41 245 98.0 254 3 US-09-823-494-28 Sequence 28, Appl  
42 245 98.0 254 3 US-09-550-374-1 Sequence 1, Appl  
43 245 98.0 254 4 US-09-431-887-20 Sequence 20, Appl  
44 245 98.0 254 4 US-09-431-887-21 Sequence 21, Appl  
45 245 98.0 254 4 US-09-627-218B-10 Sequence 10, Appl

#### ALIGNMENTS

##### RESULT 1

US-09-380-015B-2

; Sequence 2, Application US/09380015B

; Patent No. 6765088

; GENERAL INFORMATION:

; APPLICANT: Carsten Korth

; TITLE OF INVENTION: Immunological Detection of Prions

; NUMBER OF SEQUENCES: 9

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Kanton Zuerich vertreten durch die Erziehungsdirektion

; STREET: Walchetur

; CITY: Zuerich

; STATE: Zuerich

; COUNTRY: Switzerland

; ZIP: CH-8090

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/380,015B

; FILING DATE: 23-Aug-1999

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: EP 97102837.8

; FILING DATE: 21-FEB-1997

; INFORMATION FOR SEQ ID NO: 2:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 219 amino acids

; TYPE: amino acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: protein

; HYPOTHETICAL: YES

; ANTI-SENSE: NO

; ORIGINAL SOURCE:

; ORGANISM: Bos taurus

; SEQUENCE DESCRIPTION: SEQ ID NO: 2:

US-09-380-015B-2

Query Match 100.0%; Score 250; DB 4; Length 219;

Best Local Similarity 100.0%; Pred. No. 1e-25;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPVDQYGNQNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 46

DB 149 VYRPVDQYGNQNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 194

##### RESULT 2

```
US-08-242-188-3
; Sequence 3, Application US/08242188
; Patent No. 5565186
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Scott, Michael R.
; APPLICANT: Telling, Glenn
; TITLE OF INVENTION: METHOD OF DETECTING PRIONS IN A SAMPLE
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Karl Bosicevic
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/242,188
; FILING DATE: 13-MAY-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Bosicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/014001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-5277
; TELEFAX: (415) 854-0875
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 263 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: BOVINE PRION PROTEIN, BoPrP
;
US-08-242-188-3
Query Match 100.0%; Score 250; DB 1; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYVRPVDQYSNQNHFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 171 VYVRPVDQYSNQNHFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216

RESULT 3
US-08-509-261A-3
; Sequence 3, Application US/08509261A
; Patent No. 5763244
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Scott, Michael R.
; APPLICANT: Telling, Glenn
; TITLE OF INVENTION: Method of Detecting Prions
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bosicevic & Reed, LLP
; STREET: 285 Hamilton Avenue, Suite 200
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94301
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
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COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/509,261A
FILING DATE: 31-JUL-1995
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Bozicevic, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 6510-030001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-327-3400
TELEFAX: 650 327-3231
TELEX:
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 263 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
US-08-509-261A-3
Query Match 100.0%; Score 250; DB 1; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYVRPVDQYSNQNHFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 171 VYVRPVDQYSNQNHFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216

RESULT 4
US-08-660-626-9
; Sequence 9, Application US/08660626
; Patent No. 5789655
; GENERAL INFORMATION:
; APPLICANT: Stanley B. Prusiner
; APPLICANT: Glenn C. Telling
; APPLICANT: Fred E. Cohen
; APPLICANT: Michael R. Scott
; TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING
; TITLE OF INVENTION: EPITOPE-TAGGED PROTEINS
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson
; STREET: 2200 Sand Hill Road, Suite 100
; CITY: Menlo Park
; STATE: California
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: ASCII
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/660,626
; FILING DATE:
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Valeta Gregg
; REGISTRATION NUMBER: 35,127
; REFERENCE/DOCKET NUMBER: 07532/003001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 322-5070
; TELEFAX: (415) 854-0875
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 263 amino acids
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; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: BOVINE PRION PROTEIN, BoPrP
; ORGANISM: BOVINE PRION PROTEIN, BoPrP

Query Match          100.0%; Score 250; DB 1; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNIIVKEHTVTTTNGENFTETDIQM 46
    |||||
Db 171 VYRPVDQYSNQNFFVHDCVNIIVKEHTVTTTNGENFTETDIQM 216

RESULT 5
US-08-692-892-3
; Sequence 3, Application US/08692892
; Patent No. 5792901
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Scott, Michael R.
; TITLE OF INVENTION: DETECTING PRIONS IN A SAMPLE AND
; TITLE OF INVENTION: PRION PREPARATION AND TRANSGENIC ANIMAL USED FOR SAME
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Karl Bozicevic
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/692,892
; FILING DATE: 30-JULY-1996
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 322-5070
; TELEFAX: (415) 854-0875
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 263 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: BOVINE PRION PROTEIN, BoPrP
; ORGANISM: BOVINE PRION PROTEIN, BoPrP

US-08-692-892-3

Query Match          100.0%; Score 250; DB 1; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNIIVKEHTVTTTNGENFTETDIQM 46
    |||||
Db 171 VYRPVDQYSNQNFFVHDCVNIIVKEHTVTTTNGENFTETDIQM 216

RESULT 6
US-08-713-939A-3

; Sequence 3, Application US/08713939A
; Patent No. 5846533
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Williamson, R. Anthony
; APPLICANT: Burton, Dennis R.
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: U.S.A.
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/713,939A
; FILING DATE: 13-SEP-1996
; CLASSIFICATION: 436
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/059001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-854-5277
; TELEFAX: 415-854-0875
; TELEX:
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 263 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-713-939A-3

Query Match          100.0%; Score 250; DB 2; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNIIVKEHTVTTTNGENFTETDIQM 46
    |||||
Db 171 VYRPVDQYSNQNFFVHDCVNIIVKEHTVTTTNGENFTETDIQM 216

RESULT 7
US-08-868-162A-23
; Sequence 23, Application US/08868162A
; Patent No. 5962669
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley
; APPLICANT: Cohen, Fred
; APPLICANT: James, Thomas
; APPLICANT: Kaneko, Kiyotoshi
; TITLE OF INVENTION: Prion Protein Modulator Factor
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bozicevic & Reed, LLP
; STREET: 285 Hamilton Avenue, Suite 200
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94301
; COMPUTER READABLE FORM:
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; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/868,162A
; FILING DATE: 03-JUN-1997
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 6510-083001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-327-3400
; TELEFAX: 650 327-3231
; TELEX:
; INFORMATION FOR SEQ ID NO: 23:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 263 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: BOVINE PRION PROTEIN, BoPrP
; US-08-868-162A-23

Query Match 100.0%; Score 250; DB 2; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNHFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 171 VYRPVDQYSNQNHFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216

RESULT 8
US-09-031-168-9
; Sequence 9, Application US/09031168
; Patent No. 6150583
; GENERAL INFORMATION:
; APPLICANT: Stanley B. Prusiner
; APPLICANT: Glenn C. Telling
; APPLICANT: Fred E. Cohen
; APPLICANT: Michael R. Scott
; TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING
; TITLE OF INVENTION: EPITOPE-TAGGED PROTEINS
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson
; STREET: 2200 Sand Hill Road, Suite 100
; CITY: Menlo Park
; STATE: California
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: ABCIII
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/031,168
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/660,626
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Valeta Gregg
; REGISTRATION NUMBER: 35,127

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; REFERENCE/DOCKET NUMBER: 07532/003001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 322-5070
; TELEFAX: (415) 854-0875
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 263 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: BOVINE PRION PROTEIN, BoPrP
; US-09-031-168-9

Query Match 100.0%; Score 250; DB 3; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNHFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 171 VYRPVDQYSNQNHFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216

RESULT 9
US-09-036-579-3
; Sequence 3, Application US/09036579
; Patent No. 6290954
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Williamson, R. Anthony
; APPLICANT: Burton, Dennis R.
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: U.S.A.
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/036,579
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/713,939
; FILING DATE: 13-SEP-1996
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/059001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-854-5277
; TELEFAX: 415-854-0875
; TELEX:
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 263 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-09-036-579-3

Query Match 100.0%; Score 250; DB 3; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 1 VYRPVDOYSQNNFVHDCVNITVKEHTVTTTTKGENFTETDIKQM 46  
Db 171 VYRPVDOYSQNNFVHDCVNITVKEHTVTTTTKGENFTETDIKQM 216

## RESULT 10

US-09-550-374-3  
; Sequence 3, Application US/09550374  
; Patent No. 6372214  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: Williamson, R. Anthony  
; APPLICANT: Burton, Dennis R.  
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP  
; NUMBER OF SEQUENCES: 86  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson P.C.  
; STREET: 2200 Sand Hill Road  
; CITY: Menlo Park  
; STATE: CA  
; COUNTRY: U.S.A.  
; ZIP: 94025  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette  
; COMPUTER: IBM Compatible  
; OPERATING SYSTEM: DOS  
; SOFTWARE: FastSEQ Version 2.0  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/550,374  
; FILING DATE:  
; CLASSIFICATION:  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 09/036,579  
; FILING DATE:  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Bozicevic, Karl  
; REGISTRATION NUMBER: 28,807  
; REFERENCE/DOCKET NUMBER: 06510/059001  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 415-854-5277  
; TELEFAX: 415-854-0875  
; TELEX:  
; INFORMATION FOR SEQ ID NO: 3:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 263 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
US-09-550-374-3

Query Match 100.0%; Score 250; DB 3; Length 263;  
Best Local Similarity 100.0%; Pred. No. 1.3e-25;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSQNNFVHDCVNITVKEHTVTTTTKGENFTETDIKQM 46  
Db 171 VYRPVDOYSQNNFVHDCVNITVKEHTVTTTTKGENFTETDIKQM 216

## RESULT 11

US-09-943-906-3  
; Sequence 3, Application US/09943906  
; Patent No. 6562341  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: Williamson, R. Anthony  
; APPLICANT: Burton, Dennis R.  
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP  
; NUMBER OF SEQUENCES: 86  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson P.C.

; STREET: 2200 Sand Hill Road  
; CITY: Menlo Park  
; STATE: CA  
; COUNTRY: U.S.A.  
; ZIP: 94025  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette  
; COMPUTER: IBM Compatible  
; OPERATING SYSTEM: DOS  
; SOFTWARE: FastSEQ Version 2.0  
; CURRENT APPLICATION DATA:  
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; FILING DATE: 30-Aug-2001  
; CLASSIFICATION: <Unknown>  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 09/550,374  
; FILING DATE: <Unknown>  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Bozicevic, Karl  
; REGISTRATION NUMBER: 28,807  
; REFERENCE/DOCKET NUMBER: 06510/059001  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 415-854-5277  
; TELEFAX: 415-854-0875  
; TELEX: <Unknown>  
; INFORMATION FOR SEQ ID NO: 3:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 263 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
; SEQUENCE DESCRIPTION: SEQ ID NO: 3:  
US-09-943-906-3

Query Match 100.0%; Score 250; DB 4; Length 263;  
Best Local Similarity 100.0%; Pred. No. 1.3e-25;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSQNNFVHDCVNITVKEHTVTTTTKGENFTETDIKQM 46  
Db 171 VYRPVDOYSQNNFVHDCVNITVKEHTVTTTTKGENFTETDIKQM 216

## RESULT 12

US-09-669-516C-9  
; Sequence 9, Application US/09669516C  
; Patent No. 6602672  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: Telling, Glenn C.  
; APPLICANT: Cohen, Fred E.  
; APPLICANT: Scott, Michael R.  
; TITLE OF INVENTION: RECOMBINANT CONSTRUCT ENCODING EPITOPE  
; TITLE OF INVENTION: TAGGED PrP PROTEIN  
; FILE REFERENCE: UCAL-045CON  
; CURRENT APPLICATION NUMBER: US/09/669,516C  
; CURRENT FILING DATE: 2000-09-25  
; PRIOR APPLICATION NUMBER: 09/031,168  
; PRIOR FILING DATE: 1998-02-26  
; PRIOR APPLICATION NUMBER: 08/660,626  
; PRIOR FILING DATE: 1996-06-06  
; PRIOR APPLICATION NUMBER: 08/521,992  
; PRIOR FILING DATE: 1995-08-31  
; PRIOR APPLICATION NUMBER: 08/509,261  
; PRIOR FILING DATE: 1995-07-31  
; PRIOR APPLICATION NUMBER: 08/242,188  
; PRIOR FILING DATE: 1994-05-13  
; NUMBER OF SEQ ID NOS: 15  
; SOFTWARE: FastSEQ for Windows Version 4.0  
; SEQ ID NO 9  
; LENGTH: 263  
; TYPE: PrT

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; ORGANISM: bovine sp.
US-09-669-516C-9

Query Match      100.0%; Score 250; DB 4; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGKGFETETDIKMM 46
Db 171 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGKGFETETDIKMM 216

RESULT 13
US-09-128-450-21
; Sequence 21, Application US/09128450
; Patent No. 6211149
; GENERAL INFORMATION:
; APPLICANT: Cheesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 21
; LENGTH: 264
; TYPE: PRT
; ORGANISM: Bos taurus
US-09-128-450-21

Query Match      100.0%; Score 250; DB 3; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGKGFETETDIKMM 46
Db 172 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGKGFETETDIKMM 217

RESULT 14
US-09-823-494-21
; Sequence 21, Application US/09823494
; Patent No. 6355610
; GENERAL INFORMATION:
; APPLICANT: Cheesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/823,494
; PRIOR FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 21
; LENGTH: 264
; TYPE: PRT
; ORGANISM: Bos taurus
US-09-823-494-21

Query Match      100.0%; Score 250; DB 3; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGKGFETETDIKMM 46
Db 172 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGKGFETETDIKMM 217

RESULT 15
US-09-431-887-24
; Sequence 24, Application US/09431887
; Patent No. 6534036
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE
; FILE REFERENCE: ICOT/P21952
; CURRENT APPLICATION NUMBER: US/09/431,887
; CURRENT FILING DATE: 1999-11-02
; PRIOR APPLICATION NUMBER: GB 9824091.4
; PRIOR FILING DATE: 1999-11-04
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 24
; LENGTH: 264
; TYPE: PRT
; ORGANISM: Bos taurus
US-09-431-887-24

Query Match      100.0%; Score 250; DB 4; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.3e-25;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGKGFETETDIKMM 46
Db 172 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGKGFETETDIKMM 217

Search completed: July 26, 2005, 12:02:24
Job time : 23.5 secs
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GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 26, 2005, 11:48:04 ; Search time 80.75 Seconds  
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221.593 Million cell updates/sec

Title: US-10-031-975-24\_COPY\_176\_221

Perfect score: 250

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Maximum Match 100%

Listing first 45 summaries

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Published Applications AA:\*

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- 16: /cgn2\_6/ptodata/2/pubpaa/US10D\_PUBCOMB.pep.\*
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- 18: /cgn2\_6/ptodata/2/pubpaa/US10F\_PUBCOMB.pep.\*
- 19: /cgn2\_6/ptodata/2/pubpaa/US11A\_PUBCOMB.pep.\*
- 20: /cgn2\_6/ptodata/2/pubpaa/US11\_NEW\_PUB.pep.\*
- 21: /cgn2\_6/ptodata/2/pubpaa/US60\_NEW\_PUB.pep.\*
- 22: /cgn2\_6/ptodata/2/pubpaa/US60\_PUBCOMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query Match	Length	ID	Description
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2	250	100.0	117 14	Sequence 349, App
3	250	100.0	117 15	US-10-050-898-349
4	250	100.0	161 9	US-10-346-190-90
5	250	100.0	256 13	US-09-745-003-9
6	250	100.0	256 13	Sequence 9, Appli
7	250	100.0	256 16	US-10-109-551-2
8	250	100.0	256 16	Sequence 2, Appli
9	250	100.0	256 16	US-10-479-218-3
10	250	100.0	263 9	US-09-943-906-3
11	250	100.0	263 15	US-10-435-602-3
12	250	100.0	263 17	US-10-475-558-3
13	250	100.0	264 9	US-09-823-494-21
14	250	100.0	264 14	US-10-209-194-2

- Sequence 11, Appli  
Sequence 24, Appli  
Sequence 30, Appli  
Sequence 33, Appli  
Sequence 13, Appli  
Sequence 80, Appli  
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Sequence 16, Appli  
Sequence 18, Appli

ALIGNMENTS

RESULT 1

- US-10-050-902-349  
; Sequence 349, Application US/10050902  
; Publication No. US20030175290A1  
; GENERAL INFORMATION:  
; APPLICANT: Renner, Wolfgang A.  
; APPLICANT: Bachmann, Martin  
; APPLICANT: Tissot, Alain  
; APPLICANT: Maurer, Patrick  
; APPLICANT: Lechner, Franziska  
; APPLICANT: Seibel, Peter  
; APPLICANT: Piossek, Christine  
; TITLE OF INVENTION: Molecular Antigen Array  
; FILE REFERENCE: 1700.0190004  
; CURRENT APPLICATION NUMBER: US/10/050, 902  
; CURRENT FILING DATE: 2002-01-18  
; PRIOR APPLICATION NUMBER: US 60/262, 379  
; PRIOR FILING DATE: 2001-01-19  
; PRIOR APPLICATION NUMBER: US 60/288, 549  
; PRIOR FILING DATE: 2001-05-04  
; PRIOR APPLICATION NUMBER: US 60/326, 998  
; PRIOR FILING DATE: 2001-10-05  
; PRIOR APPLICATION NUMBER: US 60/331, 045  
; PRIOR FILING DATE: 2001-11-07  
; NUMBER OF SEQ ID NOS: 350  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 349  
; LENGTH: 117  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Modified bovine prion protein fragment  
US-10-050-902-349

Query Match 100.0%; Score 250; DB 14; Length 117;  
Best Local Similarity 100.0%; Pred. No. 4.9e-24;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPVDQYSNQNNFVHDCVNIIVKHEHTVTTTKGENFTETDIKMM 46  
Db 40 VYRPVDQYSNQNNFVHDCVNIIVKHEHTVTTTKGENFTETDIKMM 85

## RESULT 2

US-10-050-898-349  
; Sequence 349, Application US/10050898  
; Publication No. US2003017571A1  
; GENERAL INFORMATION:  
; APPLICANT: Renner, Wolfgang A.  
; APPLICANT: Bachmann, Martin  
; APPLICANT: Tissot, Alain  
; APPLICANT: Maurer, Patrick  
; APPLICANT: Lechner, Franziska  
; APPLICANT: Seibel, Peter  
; APPLICANT: Piossek, Christine  
; APPLICANT: Ortmann, Rainer  
; APPLICANT: Luond, Rainer  
; APPLICANT: Staufenbiel, Matthias  
; APPLICANT: Frey, Peter  
; TITLE OF INVENTION: Molecular Antigen Array  
; FILE REFERENCE: 1700.0190005  
; CURRENT APPLICATION NUMBER: US/10/050,898  
; CURRENT FILING DATE: 2002-01-18  
; PRIOR APPLICATION NUMBER: US 60/262,379  
; PRIOR FILING DATE: 2001-01-19  
; PRIOR APPLICATION NUMBER: US 60/288,549  
; PRIOR FILING DATE: 2001-05-04  
; PRIOR APPLICATION NUMBER: US 60/326,998  
; PRIOR FILING DATE: 2001-10-05  
; PRIOR APPLICATION NUMBER: US 60/331,045  
; PRIOR FILING DATE: 2001-11-07  
; NUMBER OF SEQ ID NOS: 350  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 349  
; LENGTH: 117  
; TYPE: PRT  
; ORGANISM: Artificial sequence  
; FEATURE:  
; OTHER INFORMATION: Modified bovine prion protein fragment

## US-10-050-898-349

Query Match 100.0%; Score 250; DB 14; Length 117;  
Best Local Similarity 100.0%; Pred. No. 4.9e-24;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPVDQYSNQNNFVHDCVNIIVKHEHTVTTTKGENFTETDIKMM 46  
Db 40 VYRPVDQYSNQNNFVHDCVNIIVKHEHTVTTTKGENFTETDIKMM 85

## RESULT 3

US-10-346-190-90  
; Sequence 90, Application US/10346190  
; Publication No. US20030219459A1  
; GENERAL INFORMATION:  
; APPLICANT: Bachmann, Martin  
; APPLICANT: Maurer, Patrick  
; APPLICANT: Pellicoli, Erica  
; APPLICANT: Renner, Wolfgang A.  
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates  
; FILE REFERENCE: 1700.0290003  
; CURRENT APPLICATION NUMBER: US/10/346,190  
; CURRENT FILING DATE: 2003-01-17  
; PRIOR APPLICATION NUMBER: 60/396,590  
; PRIOR FILING DATE: 2002-07-18  
; PRIOR APPLICATION NUMBER: 60/393,725  
; PRIOR FILING DATE: 2002-07-08

; PRIOR APPLICATION NUMBER: 60/389,898  
; PRIOR FILING DATE: 2002-06-20  
; PRIOR APPLICATION NUMBER: PCT/IB02/00166  
; PRIOR FILING DATE: 2002-01-21  
; PRIOR APPLICATION NUMBER: 10/050,902  
; PRIOR FILING DATE: 2002-01-18  
; NUMBER OF SEQ ID NOS: 164  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 90  
; LENGTH: 117  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Modified Bovine Prion Protein Fragment

## US-10-346-190-90

Query Match 100.0%; Score 250; DB 15; Length 117;  
Best Local Similarity 100.0%; Pred. No. 4.9e-24;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPVDQYSNQNNFVHDCVNIIVKHEHTVTTTKGENFTETDIKMM 46  
Db 40 VYRPVDQYSNQNNFVHDCVNIIVKHEHTVTTTKGENFTETDIKMM 85

## RESULT 4

US-09-745-003-9  
; Sequence 9, Application US/09745003  
; Patent No. US20020042122A1  
; GENERAL INFORMATION:  
; APPLICANT: Bazan, Fernando J  
; TITLE OF INVENTION: Human Proteins; Related Reagents  
; FILE REFERENCE: PrP2  
; CURRENT APPLICATION NUMBER: US/09/745,003  
; CURRENT FILING DATE: 2000-12-20  
; NUMBER OF SEQ ID NOS: 13  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 9  
; LENGTH: 161  
; TYPE: PRT  
; ORGANISM: bovine  
; ORGANISM: 003-9

Query Match 100.0%; Score 250; DB 9; Length 161;  
Best Local Similarity 100.0%; Pred. No. 7.1e-24;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPVDQYSNQNNFVHDCVNIIVKHEHTVTTTKGENFTETDIKMM 46  
Db 69 VYRPVDQYSNQNNFVHDCVNIIVKHEHTVTTTKGENFTETDIKMM 114

## RESULT 5

US-10-109-551-2  
; Sequence 2, Application US/10109551  
; Publication No. US20020194635A1  
; GENERAL INFORMATION:  
; APPLICANT: DUNNE, PATRICK W.  
; APPLICANT: PIEDRAHITA, JORGE  
; TITLE OF INVENTION: TRANSGENIC ANIMALS RESISTANT TO TRANSMISSIBLE  
; TITLE OF INVENTION: SPONGIFORM ENCEPHALOPATHIES  
; FILE REFERENCE: TAMK:207US  
; CURRENT APPLICATION NUMBER: US/10/109,551  
; CURRENT FILING DATE: 2002-03-28  
; PRIOR APPLICATION NUMBER: 60/280,549  
; PRIOR FILING DATE: 2001-03-30  
; NUMBER OF SEQ ID NOS: 10  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 2  
; LENGTH: 256  
; TYPE: PRT  
; ORGANISM: Bos taurus  
; ORGANISM: 551-2



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Query Match      100.0%; Score 250; DB 13; Length 256;
Best Local Similarity 100.0%; Pred. No. 1.2e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 46
Db 164 VYRPVDQYSQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 209

RESULT 6
US-10-479-218-3
; Sequence 3, Application US/10479218
; Publication No. US20040171082A1
; GENERAL INFORMATION:
; APPLICANT: The Secretary of State for Environment, Food & Rural Affairs (DEFRA)
; APPLICANT: Jeffrey, Martin
; TITLE OF INVENTION: Diagnostic method
; FILE REFERENCE: CG/P/135/WOD
; CURRENT APPLICATION NUMBER: US/10/479,218
; CURRENT FILING DATE: 2003-12-01
; PRIOR APPLICATION NUMBER: GB 0113156.4
; PRIOR FILING DATE: 2001-05-31
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent in version 3.1
; SEQ ID NO 3
; LENGTH: 256
; TYPE: PRT
; ORGANISM: Ovis aries
US-10-479-218-3

Query Match      100.0%; Score 250; DB 16; Length 256;
Best Local Similarity 100.0%; Pred. No. 1.2e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 46
Db 164 VYRPVDQYSQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 209

RESULT 7
US-09-943-906-3
; Sequence 3, Application US/09943906
; Patent No. US20020150571A1
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Williamson, R. Anthony
; APPLICANT: Burton, Dennis R.
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: U.S.A.
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/943,906
; FILING DATE: 30-Aug-2001
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/550,374
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/059001
```

```
TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-854-5277
; TELEFAX: 415-854-0875
; TELEX: <Unknown>
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 263 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-943-906-3

Query Match      100.0%; Score 250; DB 9; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 46
Db 171 VYRPVDQYSQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 216

RESULT 8
US-10-435-602-3
; Sequence 3, Application US/10435602
; Publication No. US20030228303A1
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Williamson, R. Anthony
; APPLICANT: Burton, Dennis R.
; TITLE OF INVENTION: Antibodies Specific for Native PrPsc
; FILE REFERENCE: UCAL059CON3
; CURRENT APPLICATION NUMBER: US/10/435,602
; CURRENT FILING DATE: 2003-05-09
; PRIOR APPLICATION NUMBER: 09/943,906
; PRIOR FILING DATE: 2001-08-30
; PRIOR APPLICATION NUMBER: 09/550,374
; PRIOR FILING DATE: 2000-04-13
; PRIOR APPLICATION NUMBER: 09/036,579
; PRIOR FILING DATE: 1998-03-06
; PRIOR APPLICATION NUMBER: 08/713,939
; PRIOR FILING DATE: 1996-09-13
; PRIOR APPLICATION NUMBER: 08/528,104
; PRIOR FILING DATE: 1995-09-14
; NUMBER OF SEQ ID NOS: 86
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 263
; TYPE: PRT
; ORGANISM: bovine
US-10-435-602-3

Query Match      100.0%; Score 250; DB 15; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 46
Db 171 VYRPVDQYSQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 216

RESULT 9
US-10-475-558-3
; Sequence 3, Application US/10475558
; Publication No. US20050106149A1
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Peretz, David
; APPLICANT: Williamson, R. Anthony
; APPLICANT: Burton, Dennis R.
; TITLE OF INVENTION: ANTIBODIES ABOLISH PRION PROPAGATION AND
; PROMOTE CLEARANCE OF INFECTIVITY
```

```
; FILE REFERENCE: UCAL-244
; CURRENT APPLICATION NUMBER: US/10/475,558
; CURRENT FILING DATE: 2004-05-10
; PRIOR APPLICATION NUMBER: 60/287,971
; PRIOR FILING DATE: 2001-05-01
; PRIOR APPLICATION NUMBER: US02/13346
; PRIOR FILING DATE: 2002-04-25
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 263
; TYPE: PRT
; ORGANISM: bovine
US-10-475-558-3

Query Match      100.0%; Score 250; DB 17; Length 263;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 171 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216

RESULT 10
US-09-823-494-21
; Sequence 21, Application US/09823494
; Publication No. US20010041790A1
; GENERAL INFORMATION:
; APPLICANT: Chesebro, Bruce W
; APPLICANT: Chesebro, Byron W
; APPLICANT: Caughey, Joelle
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; TITLE OF INVENTION: Protein
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/823,494
; CURRENT FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 21
; LENGTH: 264
; TYPE: PRT
; ORGANISM: Bos taurus
US-09-823-494-21

Query Match      100.0%; Score 250; DB 9; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 172 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 217

RESULT 11
US-10-209-194-2
; Sequence 2, Application US/10209194
; Publication No. US20030051264A1
; GENERAL INFORMATION:
; APPLICANT: LILJEDAHN, MONIKA
; APPLICANT: ASPLAND, SIMON ERIC
; TITLE OF INVENTION: GENETICALLY MODIFIED COWS HAVING REDUCED
; TITLE OF INVENTION: SUSCEPTIBILITY TO MAD COW DISEASE
; FILE REFERENCE: BIOBANK 007A
; CURRENT APPLICATION NUMBER: US/10/209,194
; CURRENT FILING DATE: 2002-07-29
; PRIOR APPLICATION NUMBER: 60/309,222
; PRIOR FILING DATE: 2001-07-31
; PRIOR APPLICATION NUMBER: 60/367,091
; PRIOR FILING DATE: 2002-03-21

; FILE REFERENCE: UCAL-244
; CURRENT APPLICATION NUMBER: US/10/475,558
; CURRENT FILING DATE: 2004-05-10
; PRIOR APPLICATION NUMBER: 60/287,971
; PRIOR FILING DATE: 2001-05-01
; PRIOR APPLICATION NUMBER: US02/13346
; PRIOR FILING DATE: 2002-04-25
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 264
; TYPE: PRT
; ORGANISM: Bos Taurus
US-10-209-194-2

Query Match      100.0%; Score 250; DB 14; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 172 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 217

RESULT 12
US-10-355-780-11
; Sequence 11, Application US/10355780
; Publication No. US20030143224A1
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley
; APPLICANT: Safar, Jiri
; APPLICANT: Williamson, Anthony
; APPLICANT: Burton, Dennis
; TITLE OF INVENTION: Antibodies Specific for Ungulate PrP
; FILE REFERENCE: UCAL-194
; CURRENT APPLICATION NUMBER: US/10/355,780
; CURRENT FILING DATE: 2003-01-30
; PRIOR APPLICATION NUMBER: US/09/627,218B
; PRIOR FILING DATE: 2000-07-27
; NUMBER OF SEQ ID NOS: 11
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 264
; TYPE: PRT
; ORGANISM: Bos taurus
US-10-355-780-11

Query Match      100.0%; Score 250; DB 14; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 171 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTKGENFTETDIKMM 216

RESULT 13
US-10-304-630-24
; Sequence 24, Application US/10304630
; Publication No. US20030161836A1
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE
; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF PRION DISEASE
; FILE REFERENCE: ICOT/P21952
; CURRENT APPLICATION NUMBER: US/10/304,630
; CURRENT FILING DATE: 2002-11-26
; PRIOR APPLICATION NUMBER: US/09/431,887
; PRIOR FILING DATE: 1999-11-02
; PRIOR APPLICATION NUMBER: GB 9824091.4
; PRIOR FILING DATE: 1999-11-04
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 24
; LENGTH: 264
; TYPE: PRT
; ORGANISM: Bos taurus
US-10-304-630-24

Query Match      100.0%; Score 250; DB 14; Length 264;
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Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 VYRPVDQYSNQNPFVHDCVNITVKEHTVTTTGTGENTETDIKQM 46
    |||||||
Db 172 VYRPVDQYSNQNPFVHDCVNITVKEHTVTTTGTGENTETDIKQM 217
    |||||||

RESULT 14
US-10-301-488A-30
; Sequence 30, Application US/10301488A
; Publication No. US20030166558A1
; GENERAL INFORMATION:
; APPLICANT: FRANGIONE, Blas
; APPLICANT: WISNIEWSKI, Thomas
; APPLICANT: SIGURDSSON, Einar
; TITLE OF INVENTION: SYNTHETIC IMMUNOGENIC BUT NON-DEPOSIT-FORMING POLYPEPTIDES AND
; TITLE OF INVENTION: PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN,
; TITLE OF INVENTION: ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN
; TITLE OF INVENTION: IMMUNE RESPONSE THERETO
; FILE REFERENCE: 5986/1K434US1
; CURRENT APPLICATION NUMBER: US/10/301,488A
; CURRENT FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/331,801
; PRIOR FILING DATE: 2001-11-21
; NUMBER OF SEQ ID NOS: 55
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 30
; LENGTH: 264
; TYPE: PRT
; ORGANISM: Cow
US-10-301-488A-30

Query Match 100.0%; Score 250; DB 14; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 VYRPVDQYSNQNPFVHDCVNITVKEHTVTTTGTGENTETDIKQM 46
    |||||||
Db 172 VYRPVDQYSNQNPFVHDCVNITVKEHTVTTTGTGENTETDIKQM 217
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RESULT 15
US-10-301-488A-33
; Sequence 33, Application US/10301488A
; Publication No. US20030166558A1
; GENERAL INFORMATION:
; APPLICANT: FRANGIONE, Blas
; APPLICANT: WISNIEWSKI, Thomas
; APPLICANT: SIGURDSSON, Einar
; TITLE OF INVENTION: SYNTHETIC IMMUNOGENIC BUT NON-DEPOSIT-FORMING POLYPEPTIDES AND
; TITLE OF INVENTION: PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN,
; TITLE OF INVENTION: ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN
; TITLE OF INVENTION: IMMUNE RESPONSE THERETO
; FILE REFERENCE: 5986/1K434US1
; CURRENT APPLICATION NUMBER: US/10/301,488A
; CURRENT FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/331,801
; PRIOR FILING DATE: 2001-11-21
; NUMBER OF SEQ ID NOS: 55
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 33
; LENGTH: 264
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (132)..(133)
; OTHER INFORMATION: Amino acid residues 132, 133, 139, 140, and 141 are Val, Tyr
; OTHER INFORMATION: Met, and Leu, respectively, in which one to five of residues 132,
; OTHER INFORMATION: 133, 139, 140, and 141 is substituted with Pro, Asp, Glu, Lys,

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; OTHER INFORMATION: Gly, or Ser.
; FEATURE:
; NAME/KEY: misc feature
; LOCATION: (139)..(141)
; OTHER INFORMATION: Amino acid residues 132, 133, 139, 140, and 141 are Val, Tyr
; OTHER INFORMATION: Met, and Leu, respectively, in which one to five of residues 132,
; OTHER INFORMATION: 133, 139, 140, and 141 is substituted with Pro, Asp, Glu, Lys,
; OTHER INFORMATION: Gly, or Ser.
US-10-301-488A-33

Query Match 100.0%; Score 250; DB 14; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.3e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 VYRPVDQYSNQNPFVHDCVNITVKEHTVTTTGTGENTETDIKQM 46
    |||||||
Db 172 VYRPVDQYSNQNPFVHDCVNITVKEHTVTTTGTGENTETDIKQM 217
    |||||||

Search completed: July 26, 2005, 12:07:53
Job time : 80.75 secs

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GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: July 26, 2005, 11:43:08 ; Search time 16.75 Seconds  
(without alignments)  
264.237 Million cell updates/sec

Title: US-10-031-975-24\_COPY\_176\_221

Perfect score: 250

Sequence: 1 VYRPVDQYSNQNHFVHDCV.....HTVTTTGTGENTETDIKQM 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : PIR\_79.\*

1: pir1.\*

2: pir2.\*

3: pir3.\*

4: pir4.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	250	100.0	256	2 JU0268	major prion protei
2	250	100.0	264	2 A54330	major prion protei
3	247	98.8	264	2 S37137	prion protein - gr
4	245	98.0	226	2 A53892	prion-related prot
5	245	98.0	241	2 S71048	major prion protei
6	245	98.0	241	2 S71056	major prion protei
7	245	98.0	245	2 S53627	major prion protei
8	245	98.0	245	2 S71045	major prion protei
9	245	98.0	252	2 S53631	major prion protei
10	245	98.0	253	2 S53624	major prion protei
11	245	98.0	253	2 S53623	major prion protei
12	245	98.0	253	2 S53620	major prion protei
13	245	98.0	253	2 S53625	major prion protei
14	245	98.0	253	2 I84423	major prion protei
15	245	98.0	253	2 S71055	major prion protei
16	245	98.0	253	2 S53616	major prion protei
17	245	98.0	253	2 S53618	major prion protei
18	245	98.0	253	2 S53619	major prion protei
19	245	98.0	254	2 A23544	major prion protei
20	244	97.6	260	2 S53629	major prion protei
21	243	97.2	256	2 S37149	prion protein - go
22	243	97.2	256	2 A54281	major prion protei
23	242	96.8	232	2 S71041	major prion protei
24	242	96.8	252	2 S53634	major prion protei
25	242	96.8	253	2 S53614	major prion protei
26	242	96.8	253	2 I37032	major prion protei
27	242	96.8	254	2 B34759	prion protein - go
28	242	96.8	254	2 A34759	prion protein - Ch
29	241	96.4	239	2 S53633	major prion protei

ALIGNMENTS

RESULT 1

JU0268

major prion protein 2 precursor - bovine

N;Alternate names: prion protein, short variant; Prp protein

C;Species: Bos primigenius taurus (cattle)

C;Date: 31-Mar-1992 #sequence\_revision 31-Mar-1992 #text\_change 09-Jul-2004

C;Accession: JU0268

R;Yoshimoto, J.; Iinuma, T.; Ishiguro, N.; Horiuchi, M.; Imamura, M.; Shinagawa, M.

submitted to JIPID, November 1991

A;Reference number: JT0952

A;Accession: JU0268

A;Molecule type: DNA

A;Residues: 1-256 <YOS>

A;Cross-references: UNIPROT:Q01890

C;Superfamily: major prion protein

C;Keywords: glycoprotein; phosphatidylinositol linkage; polymorphism; tandem repeat

F;1-24/Domain: signal sequence #status predicted <SIG>

F;25-256/Product: major prion protein 2 #status predicted <MAT>

F;60-91/Region: 8-residue repeats

F;182-217/Disulfide bonds: #status predicted

F;184,200/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 100.0%; Score 250; DB 2; Length 256;  
Best Local Similarity 100.0%; Pred. No. 2.4e-23;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNHFVHDCVNIIVKHEHTVTTTGTGENTETDIKQM 46

Db 164 VYRPVDQYSNQNHFVHDCVNIIVKHEHTVTTTGTGENTETDIKQM 209

RESULT 2

A54330

major prion protein 1 precursor - bovine

N;Alternate names: prion protein, long variant; Prp protein

C;Species: Bos primigenius taurus (cattle)

C;Date: 09-Sep-1994 #sequence\_revision 09-Sep-1994 #text\_change 09-Jul-2004

C;Accession: A54330; JT0953; A48551; S07347; I46931

R;Goldmann, W.; Hunter, N.; Martin, T.; Dawson, M.; Hope, J.

J. Gen. Virol. 72, 201-204, 1991

A;Title: Different forms of the bovine Prp gene have five or six copies of a short, G-C-

A;Reference number: A54330; MUID:91116314; PMID:1671225

A;Accession: A54330

A;Molecule type: DNA

A;Residues: 1-264 <GOL>

A;Cross-references: UNIPROT:P10279; GB:X55882; NID:g683; PIDN:CAA39368.1; PID:g684

R;Yoshimoto, J.; Iinuma, T.; Ishiguro, N.; Horiuchi, M.; Imamura, M.; Shinagawa, M.

submitted to JIPID, November 1991

A;Reference number: JT0953

A;Accession: JT0953

A;Molecule type: DNA

A;Residues: 1-264 <YOS>

A;Cross-references: GB:D10613; NID:g217595; PIDN:BAA01468.1; PID:g217596  
A;Accession: J0952  
A;Molecule type: DNA  
A;Residues: 1-217,'K',219-264 <Y02>  
R;Yoshimoto, J.; Iinuma, T.; Ishiguro, N.; Horiuchi, M.; Imamura, M.; Shinagawa, M.  
Virus Genes 6, 343-356, 1992  
A;Title: Comparative sequence analysis and expression of bovine PrP gene in mouse L-929  
A;Reference number: A48551; MUID:93118243; PMID:1362024  
A;Accession: A48551  
A;Molecule type: mRNA  
A;Residues: 1-217,'K',219-264 <Y03>  
A;Cross-references: GB:AB001468; NID:g1888342; PIDN:BAA19253.1; PID:g1888343  
A;Experimental source: brain  
A;Note: Sequence extracted from NCBI backbone (NCBIN:121620, NCBIPI:121621)  
R;Hope, J.; Reekie, L.J.D.; Hunter, N.; Multhaup, G.; Beyreuther, K.; White, H.; Scott,  
Nature 336, 390-392, 1988  
A;Title: Fibrils from brains of cows with new cattle disease contain scrapie-associated  
A;Reference number: S07347; MUID:89057122; PMID:2904126  
A;Accession: S07347  
A;Molecule type: protein  
A;Residues: 25-36 <HOP>  
R;Prusiner, S.B.; Fuzi, M.; Scott, M.; Serban, D.; Serban, H.; Taraboulos, A.; Gabriel,  
J. Infect. Dis. 167, 602-613, 1993  
A;Title: Immunologic and molecular biologic studies of prion proteins in bovine spongiform  
A;Reference number: I46931; MUID:931179783; PMID:8440932  
A;Accession: I46931  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: mRNA  
A;Residues: 1-264 <PRU>  
A;Cross-references: GB:S55629; NID:g266111; PIDN:AAB25514.1; PID:g266112  
A;Gene: PrP  
C;Superfamily: major prion protein  
C;Keywords: Glycoprotein; phosphatidylinositol linkage; polymorphism; tandem repeat  
F;1-24/Domain: signal sequence #status predicted <SIG>  
F;25-264/Product: major prion protein 1 #status predicted <MAT>  
F;60-99/Region: 8-residue repeats (W-C-Q-P-H-G-G-G)  
F;190-225/disulfide bonds: #status predicted  
F;192,208/Binding site: carbohydrate (Asn) (covalent) #status predicted  
Query Match 100.0%; Score 250; DB 2; Length 264;  
Best Local Similarity 100.0%; Pred. No. 2.5e-23;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
|||||  
Db 172 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 217  
|||||  
RESULT 3  
S37137  
prion protein - greater kudu  
C;Species: Tragelaphus strepsiceros (greater kudu)  
C;Date: 06-Jan-1995 #sequence\_revision 06-Jan-1995 #text\_change 09-Jul-2004  
A;Accession: S37137  
R;Martin, T.C.; Hughes, S.L.; Hughes, K.J.; Dawson, M.  
submitted to the EMBL Data Library, August 1993  
A;Reference number: S37137  
A;Accession: S37137  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-264 <MAR>  
A;Cross-references: UNIPROT:P40242; EMBL:X74771; NID:g398937; PIDN:CAA52781.1; PID:g3989  
C;Superfamily: major prion protein  
Query Match 98.8%; Score 247; DB 2; Length 264;  
Best Local Similarity 97.8%; Pred. No. 5.9e-23;  
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
|||||  
Db 172 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 217  
|||||

## RESULT 4

A53892  
prion-related protein - rat (fragment)  
C;Species: Rattus norvegicus (Norway rat)  
C;Date: 07-Oct-1994 #sequence\_revision 07-Oct-1994 #text\_change 09-Jul-2004  
A;Accession: A53892  
R;Jiao, Y.C.; Tokes, Z.; Lim, E.; Lackey, A.; Woo, C.H.; Button, J.D.; Clawson, G.A.  
Lab. Invest. 57, 370-374, 1987  
A;Title: Cloning of rat "prion-related protein" cDNA.  
A;Reference number: A53892; MUID:88037055; PMID:2889848  
A;Accession: A53892  
A;Status: preliminary  
A;Molecule type: mRNA  
A;Residues: 1-226 <LIA>  
A;Cross-references: UNIPROT:P13852; GB:M20313; NID:g206391; PIDN:AAA41947.1; PID:g206392  
C;Superfamily: major prion protein

Query Match 98.0%; Score 245; DB 2; Length 226;

Best Local Similarity 93.5%; Pred. No. 8.7e-23;  
Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
|||||  
Db 133 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 178  
|||||

## RESULT 5

S71048  
major prion protein - Callicebus moloch (fragment)  
C;Species: Callicebus moloch  
C;Date: 27-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
A;Accession: S71048; S53632  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71048  
A;Molecule type: DNA  
A;Residues: 1-241 <SCH>  
A;Cross-references: UNIPROT:P40248; EMBL:U08312; NID:g475585; PIDN:AAC50100.1; PID:g47558  
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53632  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-203,'R',205-240 <SCW>  
A;Cross-references: EMBL:U08312  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 98.0%; Score 245; DB 2; Length 241;

Best Local Similarity 93.5%; Pred. No. 9.4e-23;  
Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
|||||  
Db 154 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 199  
|||||

## RESULT 6

S71056  
major prion protein - mandrill (fragment)  
C;Species: Papio sphinx, Mandrillus sphinx (mandrill)  
C;Date: 27-Oct-1996 #sequence\_revision 14-Feb-1997 #text\_change 09-Jul-2004  
A;Accession: S71056; S53621  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71056  
A;Molecule type: DNA  
A;Residues: 1-241 <SCH>

A;Cross-references: UNIPROT:P40255; EMBL:U08303; NID:g474364; PIDN:AAC50091.1; PID:g474364  
R;Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53627; MUID:95139066; PMID:7837269  
A;Accession: S53621  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-203, 'R', 205-240 <SCW>  
A;Cross-references: EMBL:U08303  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 98.0%; Score 245; DB 2; Length 241;  
Best Local Similarity 93.5%; Pred. No. 9.4e-23;  
Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGTFETDVKM 46  
|||||  
Db 154 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGTFETDVKM 199  
|||||

RESULT 7  
S53627  
major prion protein - green monkey  
C;Species: Cercopithecus aethiops (green monkey, grivet)  
C;Date: 28-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
C;Accession: S53627; S71043  
R;Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53627  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-245 <SCH>  
A;Cross-references: UNIPROT:P40250; EMBL:U08291  
R;Schaezel, H.M.  
A;Reference number: S71041  
A;Accession: S71043  
A;Molecule type: DNA  
A;Residues: 1-10, 'V', 12-202, 'E', 204-245 <SCW>  
A;Cross-references: EMBL:U08291; NID:g474340; PIDN:AAC50080.1; PID:g474341  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 98.0%; Score 245; DB 2; Length 245;  
Best Local Similarity 93.5%; Pred. No. 9.5e-23;  
Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGTFETDVKM 46  
|||||  
Db 153 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGTFETDVKM 198  
|||||

RESULT 8  
S71045  
major prion protein - Cercopithecus diana  
C;Species: Cercopithecus diana  
C;Date: 14-Feb-1997 #sequence\_revision 14-Feb-1997 #text\_change 09-Jul-2004  
C;Accession: S71045; S53628  
R;Schaezel, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71045  
A;Molecule type: DNA  
A;Residues: 1-245 <SCH>  
A;Cross-references: UNIPROT:P40250; EMBL:U08292; NID:g474342; PIDN:AAC50081.1; PID:g474343  
R;Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269

A;Accession: S53628  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 8-10, 'L', 12-202, 'R', 204-239 <SCW>  
A;Cross-references: EMBL:U08292  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 98.0%; Score 245; DB 2; Length 245;  
Best Local Similarity 93.5%; Pred. No. 9.5e-23;  
Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGTFETDVKM 46  
|||||  
Db 153 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGTFETDVKM 198  
|||||

RESULT 9  
S53631  
major prion protein - brown capuchin  
C;Species: Cebus apella (brown capuchin, black-capped capuchin)  
C;Date: 28-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
C;Accession: S53631; S71044  
R;Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53631  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-252 <SCH>  
A;Cross-references: UNIPROT:P40249; EMBL:U08295  
R;Schaezel, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71044  
A;Molecule type: DNA  
A;Residues: 1-209, 'E', 211-252 <SCW>  
A;Cross-references: EMBL:U08295; NID:g474348; PIDN:AAC50084.1; PID:g474349  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 98.0%; Score 245; DB 2; Length 252;  
Best Local Similarity 93.5%; Pred. No. 9.8e-23;  
Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGTFETDVKM 46  
|||||  
Db 160 VYRPVDQYSNQNFFVHDCVNITVKEHTVTTTGTGTFETDVKM 205  
|||||

RESULT 10  
S53624  
major prion protein - stump-tailed macaque  
C;Species: Macaca arctoides (stump-tailed macaque)  
C;Date: 14-Feb-1997 #sequence\_revision 14-Feb-1997 #text\_change 11-Aug-2003  
C;Accession: S53624; S71051  
R;Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53624  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-253 <SCH>  
A;Cross-references: EMBL:U08311  
R;Schaezel, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71051  
A;Molecule type: DNA  
A;Residues: 1-210, 'E', 212-253 <SCW>  
A;Cross-references: EMBL:U08311; NID:g475583; PIDN:AAC50099.1; PID:g475584

C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 98.0%; Score 245; DB 2; Length 253;  
Best Local Similarity 93.5%; Pred. No. 9.9e-23;  
Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
Db 161 VYRPVDOYSNQNNFVHDCVNITIKQHTVTTTKGENFTETDVKMM 206

## RESULT 11

major prion protein - crab-eating macaque  
C;Species: Macaca fascicularis (crab-eating macaque)  
C;Date: 14-Feb-1997 #sequence\_revision 14-Feb-1997 #text\_change 11-Aug-2003  
C;Accession: S53623; S71052  
R;Schaeztl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53623  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-253 <SCH>  
A;Cross-references: EMBL:U08298  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71052  
A;Molecule type: DNA  
A;Residues: 1-210, 'E', 212-253 <SCW>  
A;Cross-references: EMBL:U08298; NID:g474354; PIDN:AAC50087.1; PID:g474355  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 98.0%; Score 245; DB 2; Length 253;  
Best Local Similarity 93.5%; Pred. No. 9.9e-23;  
Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
Db 161 VYRPVDOYSNQNNFVHDCVNITIKQHTVTTTKGENFTETDVKMM 206

## RESULT 12

major prion protein - hamadryas baboon  
C;Species: Papio hamadryas (hamadryas baboon)  
C;Date: 28-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 11-Aug-2003  
C;Accession: S53620; S71058  
R;Schaeztl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53620  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-253 <SCH>  
A;Cross-references: EMBL:U08294  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71058  
A;Molecule type: DNA  
A;Residues: 1-210, 'E', 212-253 <SCW>  
A;Cross-references: EMBL:U08294; NID:g474346; PIDN:AAC50083.1; PID:g474347  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 98.0%; Score 245; DB 2; Length 253;  
Best Local Similarity 93.5%; Pred. No. 9.9e-23;

Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
Db 161 VYRPVDOYSNQNNFVHDCVNITIKQHTVTTTKGENFTETDVKMM 206

## RESULT 13

major prion protein - Japanese macaque  
C;Species: Macaca fuscata (Japanese macaque)  
C;Date: 14-Feb-1997 #sequence\_revision 14-Feb-1997 #text\_change 09-Jul-2004  
C;Accession: S53625; S71053  
R;Schaeztl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53625  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-253 <SCH>  
A;Cross-references: UNIPROT:P40254; EMBL:U08301  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71053  
A;Molecule type: DNA  
A;Residues: 1-210, 'E', 212-253 <SCW>  
A;Cross-references: EMBL:U08301; NID:g474360; PIDN:AAC50090.1; PID:g474361  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 98.0%; Score 245; DB 2; Length 253;  
Best Local Similarity 93.5%; Pred. No. 9.9e-23;  
Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46  
Db 161 VYRPVDOYSNQNNFVHDCVNITIKQHTVTTTKGENFTETDVKMM 206

## RESULT 14

major prion protein precursor - rhesus macaque  
C;Species: Macaca mulatta (rhesus macaque)  
C;Date: 24-May-1996 #sequence\_revision 24-May-1996 #text\_change 09-Jul-2004  
C;Accession: I84423; S53622; S71054  
R;Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.; Di  
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994  
A;Title: Infectious amyloid precursor gene sequences in primates used for experimental t  
A;Reference number: I36907; MUID:95083661; PMID:7991600  
A;Accession: I84423  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: DNA  
A;Residues: 1-253 <RES>  
A;Cross-references: UNIPROT:P40254; EMBL:U15163; NID:g595850; PIDN:AAA68635.1; PID:g595850  
R;Schaeztl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53622  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-210, 'R', 212-253 <SCH>  
A;Cross-references: EMBL:U08307  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71054  
A;Molecule type: DNA  
A;Residues: 1-253 <SCW>  
A;Cross-references: EMBL:U08307; NID:g474372; PIDN:AAC50095.1; PID:g474373  
C;Superfamily: major prion protein



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Job time : 17.75 secs

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GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: July 26, 2005, 11:42:12 ; Search time 81 Seconds  
(without alignments)  
290.810 Million cell updates/sec

Title: US-10-031-975-24\_COPY\_176\_221

Perfect score: 250

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Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

UniProt\_03:\*

1: uniprot\_sprot:\*

2: uniprot\_trembl:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	250	100.0	97	2 Q6EIP9	Q6EIP9 bos taurus
2	250	100.0	100	2 Q6EIQ2	Q6EIQ2 bos taurus
3	250	100.0	200	2 Q57912	Q57912 bison bonas
4	250	100.0	211	2 Q5J6V2	Q5J6V2 bos taurus
5	250	100.0	216	2 Q5TV00	Q5TV00 bos taurus
6	250	100.0	256	1 PRP2_BOVIN	PRP2_BOVIN
7	250	100.0	264	1 PRP1_BOVIN	PRP1_BOVIN
8	250	100.0	264	2 Q68G98	Q68G98 camelus bac
9	250	100.0	264	2 Q6EH52	Q6EH52 ailuropoda
10	250	100.0	264	2 Q6UL03	Q6UL03 bos taurus
11	250	100.0	264	2 Q6UL04	Q6UL04 bos taurus
12	250	100.0	264	2 Q6UL05	Q6UL05 bos taurus
13	250	100.0	264	2 Q6UL06	Q6UL06 bos taurus
14	250	100.0	264	2 Q6UL07	Q6UL07 bos mutus g
15	250	100.0	264	2 Q6UL09	Q6UL09 bos mutus g
16	250	100.0	264	2 Q7YRN3	Q7YRN3 bos taurus
17	250	100.0	264	2 Q864W0	Q864W0 bos taurus
18	250	100.0	272	2 Q8MJ17	Q8MJ17 bos taurus
19	247	98.8	226	2 Q57907	Q57907 gazella sub
20	247	98.8	227	2 Q57909	Q57909 tragelaphus
21	247	98.8	256	1 PRP2_TRAST	PRP2_TRAST
22	247	98.8	264	1 PRP1_TRAST	PRP1_TRAST
23	245	98.0	215	2 Q57904	Q57904 bos javanic
24	245	98.0	238	1 PRP1_CERAT	PRP1_CERAT
25	245	98.0	238	1 PRP1_MACS	PRP1_MACS
26	245	98.0	238	1 PRP1_THEGE	PRP1_THEGE
27	245	98.0	241	1 PRP1_CALMO	PRP1_CALMO
28	245	98.0	241	1 PRP1_MANS	PRP1_MANS
29	245	98.0	245	1 PRP1_CERAE	PRP1_CERAE
30	245	98.0	245	1 PRP1_CERDI	PRP1_CERDI
31	245	98.0	246	1 PRP1_CERMO	PRP1_CERMO

32	245	98.0	246	1 PRP1_CERNE	P61762 cercopithec
33	245	98.0	246	1 PRP1_CERTO	Q95176 cercocobus
34	245	98.0	246	1 PRP1_ERYPA	Q95174 erythrocebu
35	245	98.0	252	1 PRP1_CEBAP	P40249 cebus apell
36	245	98.0	253	1 PRP1_COLGU	P40251 colobus gue
37	245	98.0	253	1 PRP1_MACAR	P67993 macaca arct
38	245	98.0	253	1 PRP1_MACFA	P67992 macaca fusc
39	245	98.0	253	1 PRP1_MACFU	P67994 macaca fusc
40	245	98.0	253	1 PRP1_MACMU	P67997 macaca mula
41	245	98.0	253	1 PRP1_MACNE	P67995 macaca neme
42	245	98.0	253	1 PRP1_PAPHA	P67996 papio hanad
43	245	98.0	253	1 PRP1_PONPY	P40256 pongo pygma
44	245	98.0	253	1 PRP1_PREFR	P40257 presbytis f
45	245	98.0	253	2 Q6JL99	Q6JL99 macaca mula

#### ALIGNMENTS

RESULT 1  
Q6EIP9 PRELIMINARY; PRT; 97 AA.  
AC Q6EIP9; 25-OCT-2004 (Tremblrel. 28, Created)  
DT 25-OCT-2004 (Tremblrel. 28, Last sequence update)  
DE Prion protein (Fragment).  
OS Bos taurus (Bovine).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
OC Bovinae; Bos.  
OX NCBI\_TaxID=9913;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Zhang L., Li N., Fan B.;  
RC Submitted (JUN-2003) to the EMBL/GenBank/DBJ databases.  
RL -1- SIMILARITY: Belongs to the prion family.  
DR EMBL; AY320374; AAQ94050.1; -  
DR InterPro; IPR000817; Prion.  
DR Pfam; PF00377; Prion; 1.  
DR SMART; SM00157; PRP; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
FT NON\_TER 1 1  
FT NON\_TER 97 97  
SQ SEQUENCE 97 AA; 11714 MW; 24C8DC7072FE98CE CRC64;  
Query Match 100.0%; Score 250; DB 2; Length 97;  
Best Local Similarity 100.0%; Pred. No. 4.7e-24;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPVDQYSNQNNFVHDCVITVKHETVTTTTKGNFETDIKMM 46  
Db 25 VYRPVDQYSNQNNFVHDCVITVKHETVTTTTKGNFETDIKMM 70

RESULT 2  
Q6EIQ2 PRELIMINARY; PRT; 100 AA.  
AC Q6EIQ2; 25-OCT-2004 (Tremblrel. 28, Created)  
DT 25-OCT-2004 (Tremblrel. 28, Last sequence update)  
DE Prion protein (Fragment).  
OS Bos taurus (Bovine).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
OC Bovinae; Bos.  
OX NCBI\_TaxID=9913;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Zhang L., Li N., Fan B.;  
RL Submitted (JUN-2003) to the EMBL/GenBank/DBJ databases.

CC -1- SIMILARITY: Belongs to the prion family.

DR EMBL; AY320371; AAQ94047.1; -.

DR InterPro; IPR000817; Prion.

DR Pfam; PF00377; Prion; 1.

DR SMART; SM00157; PRP; 1.

DR PROSITE; PS00706; PRION\_2; 1.

KW Prion.

FT NON\_TER 1 1

FT NON\_TER 100 100

SQ SEQUENCE 100 AA; 12065 MW; 4AF40583CB5B4169 CRC64;

Query Match 100.0%; Score 250; DB 2; Length 100;

Best Local Similarity 100.0%; Pred. No. 4.9e-24;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDPQYNNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46

Db 29 VYRPVDPQYNNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 74

RESULT 3

O97912

ID O97912 PRELIMINARY; PRT; 200 AA.

AC O97912;

DT 01-MAY-1999 (TrEMBLrel. 10, Created)

DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)

DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)

DE Prion protein (Fragment).

GN Name=Prp;

OS Bison bonasus (European bison).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;

OC Bovinae; Bison.

OX NCBI\_TaxID=9902;

RN [1]

RP SEQUENCE FROM N.A.

RC TISSUE=PBL;

RX MEDLINE=99303687; PubMed=10373359; DOI=10.1006/jmbi.1999.2831;

RA Wopfinger F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,

RA Schwarz T.F., Werner T., Schatzl H.M.;

RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation

of flexible regions of the prion protein.";

RL J. Mol. Biol. 289:1163-1178(1999).

CC -1- SIMILARITY: Belongs to the prion family.

DR EMBL; AF117328; AAD19999.1; -.

DR HSSP; P10279; IDWY.

DR GO; GO:0006355; P:regulation of transcription, DNA-dependent; IEA.

DR GO; GO:0007165; P:signal transduction; IEA.

DR InterPro; IPR001610; PAC.

DR InterPro; IPR000817; Prion.

DR Pfam; PF00377; Prion; 1.

DR Pfam; PF03991; Prion\_octapep; 6.

DR SMART; SM00086; PAC; 1.

DR SMART; SM00157; PRP; 1.

DR PROSITE; PS00291; PRION\_1; 1.

DR PROSITE; PS00706; PRION\_2; 1.

KW Prion.

FT NON\_TER 1 1

FT NON\_TER 200 200

SQ SEQUENCE 200 AA; 21674 MW; 1F270CDF4BE5271B CRC64;

Query Match 100.0%; Score 250; DB 2; Length 200;

Best Local Similarity 100.0%; Pred. No. 1.1e-23;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDPQYNNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46

Db 129 VYRPVDPQYNNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 174

RESULT 4

Q6J6V2

ID Q6J6V2 PRELIMINARY; PRT; 211 AA.

AC O6J6V2;

DT 05-JUL-2004 (TrEMBLrel. 27, Created)

DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)

DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)

DE Prion protein (Fragment).

GN Name=PRNP;

OS Bos taurus (Bovine).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;

OC Bovinae; Bos.

OX NCBI\_TaxID=9913;

RN [1]

RP SEQUENCE FROM N.A.

RC STRAIN=Chinese yellow cattle; TISSUE=Blood;

RA Wang Z., Wang C., Wu X.;

RT "Cloning and sequencing of PrPc mature protein gene of Chinese yellow

cattle.";

RL Zhongguo Dongwu Jianyi 19:21-22(2002).

RN [2]

RP SEQUENCE FROM N.A.

RC STRAIN=Chinese yellow cattle; TISSUE=Blood;

RA Wang Z., Wang C., Wu X.;

RT Submitted (MAR-2004) to the EMBL/GenBank/DBJ databases.

CC -1- SIMILARITY: Belongs to the prion family.

DR EMBL; AY585239; AAT09128.1; -.

DR HSSP; P04925; IAG2.

DR InterPro; IPR000817; Prion.

DR Pfam; PF00377; Prion; 1.

DR Pfam; PF03991; Prion\_octapep; 5.

DR SMART; SM00157; PRP; 1.

DR PROSITE; PS00291; PRION\_1; 1.

DR PROSITE; PS00706; PRION\_2; 1.

KW Prion.

FT NON\_TER 1 1

FT CHAIN <1 >211

FT NON\_TER 211 211

SQ SEQUENCE 211 AA; 22990 MW; 41F5D7CA624B4779 CRC64;

Query Match 100.0%; Score 250; DB 2; Length 211;

Best Local Similarity 100.0%; Pred. No. 1.1e-23;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDPQYNNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46

Db 141 VYRPVDPQYNNQNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 186

RESULT 5

Q9TV00

ID Q9TV00 PRELIMINARY; PRT; 216 AA.

AC Q9TV00;

DT 01-MAY-2000 (TrEMBLrel. 13, Created)

DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)

DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)

DE Prion protein (Fragment).

GN Name=Prp;

OS Bos taurus (Bovine).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;

OC Bovinae; Bos.

OX NCBI\_TaxID=9913;

RN [1]

RP SEQUENCE FROM N.A.

RC TISSUE=PBL;

RX MEDLINE=99303687; PubMed=10373359; DOI=10.1006/jmbi.1999.2831;

RA Wopfinger F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,

RA Schwarz T.F., Werner T., Schatzl H.M.;

RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation

of flexible regions of the prion protein.";

RL J. Mol. Biol. 289:1163-1178(1999).

CC -1- SIMILARITY: Belongs to the prion family.

DR EMBL; AF117327; AAD19998.1; -.

DR HSSP; P10279; IDWY.

DR Pfam: PF03991; Prion octapep; 5.  
 DR PRINTS; PR00341; PRION.  
 DR PROSITE; PS00291; PRION 1; 1.  
 DR PROSITE; PS00706; PRION 2; 1.  
 KW Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;  
 KW Signal.  
 FT SIGNAL 1 24  
 FT CHAIN 25 233 Major prion protein 2.  
 FT PROPEP 234 256 Removed in mature form (Potential).  
 FT LIPID 233 233 GPI-anchor amidated alanine (Potential).  
 FT CARBOHYD 184 184 N-linked (GlcNAc. .) (Potential).  
 FT CARBOHYD 200 200 N-linked (GlcNAc. .) (Potential).  
 FT DISULFID 182 217 By similarity.  
 FT DOMAIN 54 95 5 X 8 AA tandem repeats of P-H-G-G-G-W-G-G.  
 FT REPEAT 54 62 1.  
 FT REPEAT 63 70 2.  
 FT REPEAT 71 78 3.  
 FT REPEAT 79 86 4.  
 FT REPEAT 87 95 5.  
 SQ SEQUENCE 256 AA; 27880 MW; 0D969FF2D9033B30 CRC64;  
 Query Match 100.08; Score 250; DB 1; Length 256;  
 Best Local Similarity 100.08; Pred. No. 1.4e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps  
 QY 1 VYYPVDQYSQNPNFVHDCVNIITVKEHTVTTTTTIGENFTETDIKQM 46  
 DB 164 VYYPVDQYSQNPNFVHDCVNIITVKEHTVTTTTTIGENFTETDIKQM 209  
 RESULT 7  
 ID\_PRIO\_BOVIN STANDARD; PRT; 264 AA.  
 AC P10279;  
 DT 01-MAR-1989 (Rel. 10, Created)  
 DT 01-NOV-1991 (Rel. 20, Last sequence update)  
 DT 25-OCT-2004 (Rel. 45, Last annotation update)  
 DE Major prion protein 1 precursor (PrP) (Major scrapie-associated fibril  
 DE protein 1).  
 DE Name=PRNP; Synonyms=PRP;  
 OS Bos taurus (Bovine).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
 OC Bovinae; Bos.  
 OC NCBI\_TaxID=9913;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC STRAIN=Holstein-Friesian;  
 RA MEDLINE=91116314; PubMed=16711225;  
 RX Goldmann W., Hunter N., Martin T., Dawson M., Hope J.;  
 RT "Different forms of the bovine PrP gene have five or six copies of a  
 RL short, G-C-rich element within the protein-coding exon.";  
 RL J. Gen. Virol. 72:201-204(1991).  
 RN [2]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Brain;  
 RX MEDLINE=93118243; PubMed=1362024;  
 RA Yoshimoto J., Iinuma T., Ishiguro N., Horiuchi M., Imamura M.,  
 RA Shinagawa M.;  
 RT "Comparative sequence analysis and expression of bovine PrP gene in  
 RL mouse L-929 cells.";  
 RL Virus Genes 6:343-356(1992).  
 RN [3]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=93119783; PubMed=8440932;  
 RA Prusiner S.B., Fuzi M., Scott M., Serban D., Serban H., Taraboulos A.,  
 RA Gabriel J.M., Wells G.A., Wilesmith J.W., Bradley R.;  
 RT "Immunologic and molecular biologic studies of prion proteins in  
 RL bovine spongiform encephalopathy.";  
 RL J. Infect. Dis. 167:602-613(1993).  
 RN [4]  
 RP SEQUENCE FROM N.A.

RC STRAIN=Holstein-Friesian; TISSUE=Brain;  
RA Horiuchi M.;  
RL Submitted (FEB-1997) to the EMBL/GenBank/DBJ databases.  
RN [5]  
RP SEQUENCE FROM N.A.  
RC STRAIN=Jersey;  
RX MEDLINE=21422903; PubMed=11531705;  
RA Hills D., Comincini S., Schlaepfer J., Dolf G., Ferretti L.,  
RA Williams J.L.;  
RT "Complete genomic sequence of the bovine prion gene (PRNP) and  
RT polymorphism in its promoter region.";  
RN Anim. Genet. 32:231-232(2001).  
RN [6]  
RP SEQUENCE FROM N.A.  
RC STRAIN=Korean;  
RA Yoo H.S., Kang S.G., Choi I.S., Kang S.K., Hwang W.S.;  
RT "Nucleotide sequence of PrP cDNA in Korean cattle.";  
RL Submitted (JUN-2002) to the EMBL/GenBank/DBJ databases.  
RN [7]  
RP SEQUENCE OF 1-15 FROM N.A.  
RA Tanaka M., Inoue S., Ikeda T., Horiuchi M., Ishiguro N., Shinagawa M.;  
RL Submitted (JAN-1994) to the EMBL/GenBank/DBJ databases.  
RN [8]  
RP SEQUENCE OF 25-36.  
RX MEDLINE=89057122; PubMed=2904126; DOI=10.1038/336390a0;  
RA Hope J., Reekie L.J.D., Hunter N., Multhaup G., Beyreuther K.,  
RA White H., Scott A.C., Stack M.J., Dawson M., Wells G.A.;  
RT "Fibrils from brains of cows with new cattle disease contain scrapie-  
RT associated protein.";  
RL Nature 336:390-392(1988).  
RN [9]  
RP STRUCTURE BY NMR OF 132-241.  
RX MEDLINE=20359707; PubMed=10899999; DOI=10.1073/pnas.97.15.8334;  
RA Lopez Garcia F., Zahn R., Riek R., Wuethrich K.;  
RT "NMR structure of the bovine prion protein.";  
RL Proc. Natl. Acad. Sci. U.S.A. 97:8334-8339(2000).  
CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the  
CC host genome and is expressed both in normal and infected cells.  
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called  
CC "rods".  
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
CC -1- DISEASE: Found in high quantity in the brain of humans and animals  
CC infected with degenerative neurological diseases such as kuru,  
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome  
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
CC transmissible mink encephalopathy (TME), etc.  
CC -1- SIMILARITY: Belongs to the prion family.  
CC -----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
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CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
CC -----  
DR EMBL; X55882; CAA39368.1; -;  
DR EMBL; D10612; BAA01467.1; -;  
DR EMBL; D10613; BAA01468.1; -;  
DR EMBL; S55629; AAB25514.1; -;  
DR EMBL; AB001468; BAA19253.1; -;  
DR EMBL; AJ298878; CAC37367.1; -;  
DR EMBL; AF517842; AAM66709.1; -;  
DR EMBL; D26151; BAA05138.1; -;  
DR PIR; A54330; A54330.  
DR PDB; 1DWY; NMR; A=130-241.  
DR PDB; 1DWZ; NMR; A=130-241.  
DR PDB; 1DX0; NMR; A=23-241.  
DR PDB; 1DX1; NMR; A=23-241.  
DR InterPro; IPR000817; Prion.  
DR Pfam; PF030377; Prion; 1.  
DR Pfam; PF030391; Prion octapep; 6.  
DR PRINTS; PR00341; PRION.

DR PROSITE; PS00291; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Lipoprotein; Direct protein sequencing; Glycoprotein; GPI-anchor;  
KW Lipoprotein; Membrane; Polymorphism; Prion; Repeat; Signal.  
FT SIGNAL 1 24  
FT CHAIN 25 241 Major prion protein 1.  
FT PROPEP 242 264 Removed in mature form (Potential).  
FT LIPID 241 241 GPI-anchor amidated alanine (Potential).  
FT CARBOHYD 192 192 N-linked (GlcNAc...) (Probable).  
FT CARBOHYD 208 208 N-linked (GlcNAc...) (Probable).  
FT DISULFID 190 225  
FT DOMAIN 54 103  
FT REPEAT 54 62  
FT REPEAT 63 70  
FT REPEAT 71 78  
FT REPEAT 79 86  
FT REPEAT 87 94  
FT REPEAT 95 103  
FT VARIANT 71 78 Missing (in allele 2).  
FT CONFLICT 218 218 E -> K (in Ref. 2 and 4).  
FT HELIX 136 138  
FT STRAND 140 141  
FT TURN 155 162  
FT TURN 163 164  
FT HELIX 165 167  
FT STRAND 173 174  
FT HELIX 184 203  
FT TURN 204 206  
FT HELIX 211 237  
SQ SEQUENCE 264 AA; 28614 MW; D6D214038316A231 CRC64;  
Query Match 100.0%; Score 250; DB 1; Length 264;  
Best Local Similarity 100.0%; Pred. No. 1.4e-23;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 VYVRPDDQSYNQNNFVHDCVNIIVKSHVTVTTKGENFTETDKMM 46  
Db 172 VYVRPDDQSYNQNNFVHDCVNIIVKSHVTVTTKGENFTETDKMM 217  
RESULT 8  
G68G98 PRELIMINARY; PRT; 264 AA.  
ID Q68G98  
AC Q68G98 (TrEMBLrel. 28, Created)  
DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)  
DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)  
DE Prion protein.  
GN Names=Prp;  
OS Camelus bactrianus (Bactrian camel).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Cetartiodactyla; Tylopoda; Camelidae; Camelus.  
OX NCBI\_TaxID=9837;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC TISSUE=Blood;  
RA Wu R., Xie Q.Q., Liu X.T., Chen H.T.;  
RT "Cloning and sequence analysis of prion protein (PrP) genes from  
RT Bactrian camel and musk deer.";  
RL Submitted (AUG-2004) to the EMBL/GenBank/DBJ databases.  
CC -1- SIMILARITY: Belongs to the prion family.  
DR EMBL; AY723283; AAU02114.1; -;  
DR InterPro; IPR000817; Prion.  
DR Pfam; PF030377; Prion; 1.  
DR Pfam; PF030391; Prion octapep; 6.  
DR PRINTS; PR00341; PRION.  
DR SMART; SM00157; PRP; 1.  
DR PROSITE; PS00291; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
SQ SEQUENCE 264 AA; 28614 MW; D6D214038316A231 CRC64;

Query Match 100.0%; Score 250; DB 2; Length 264;  
 Best Local Similarity 100.0%; Pred. No. 1.4e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSNQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 46  
 Db 172 VYRPVDOYSNQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 217

## RESULT 9

Q6EH52 PRELIMINARY; PRT; 264 AA.  
 AC Q6EH52;  
 DT 25-OCT-2004 (TrEMBLrel. 28, Created)  
 DT 25-OCT-2004 (TrEMBLrel. 28, Last sequence update)  
 DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)  
 DE Prion protein.  
 OS Ailuropoda melanoleuca (Giant panda).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Carnivora; Fissipedia; Ursidae; Ailuropoda.  
 OX NCBI\_TaxID=9646;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Yang J., Zhao D., Li N.;  
 RL Submitted (JUN-2003) to the EMBL/GenBank/DBJ databases.  
 CC -!- SIMILARITY: Belongs to the prion family.  
 DR EMBL; AY327449; AAQ93320.1; -;  
 DR InterPro; IPR000817; Prion.  
 DR Pfam; PF00377; Prion; 1.  
 DR Pfam; PF03991; Prion octapep; 6.  
 DR PRINTS; PR00341; PRION.  
 DR SMART; SM00157; PRP; 1.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 KW Prion.  
 SQ SEQUENCE 264 AA; 28583 MW; 38C9F5BD98B6092A CRC64;

Query Match 100.0%; Score 250; DB 2; Length 264;  
 Best Local Similarity 100.0%; Pred. No. 1.4e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSNQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 46  
 Db 172 VYRPVDOYSNQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 217

## RESULT 10

Q6UL03 PRELIMINARY; PRT; 264 AA.  
 AC Q6UL03;  
 DT 05-JUL-2004 (TrEMBLrel. 27, Created)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)  
 DE Prion protein.  
 OS Bos taurus (Bovine).  
 GN Name=Prp;  
 ON Bos taurus (Bovine).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
 OC Bovinae; Bos.  
 OX NCBI\_TaxID=9913;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Wu R., Xie Q.G., Liu X.T., Chen H.T., Cheng J.;  
 RL Submitted (AUG-2003) to the EMBL/GenBank/DBJ databases.  
 CC -!- SIMILARITY: Belongs to the prion family.  
 DR EMBL; AY367643; AAQ64650.1; -;  
 DR HSP; P04925; IAG2.  
 DR InterPro; IPR000817; Prion.  
 DR Pfam; PF00377; Prion; 1.  
 DR Pfam; PF03991; Prion octapep; 6.  
 DR PRINTS; PR00341; PRION.  
 DR SMART; SM00157; PRP; 1.

DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 KW Prion.  
 SQ SEQUENCE 264 AA; 28642 MW; D499780PB26EFD0E CRC64;

Query Match 100.0%; Score 250; DB 2; Length 264;  
 Best Local Similarity 100.0%; Pred. No. 1.4e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSNQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 46  
 Db 172 VYRPVDOYSNQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 217

## RESULT 11

Q6UL04 PRELIMINARY; PRT; 264 AA.  
 ID Q6UL04  
 AC Q6UL04;  
 DT 05-JUL-2004 (TrEMBLrel. 27, Created)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)  
 DE Prion protein.  
 GN Name=Prp;  
 OS Bos taurus (Bovine).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
 OC Bovinae; Bos.  
 OX NCBI\_TaxID=9913;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Blood;  
 RA Wu R., Xie Q.G., Liu X.T., Chen H.T., Cheng J.;  
 RL Submitted (AUG-2003) to the EMBL/GenBank/DBJ databases.  
 CC -!- SIMILARITY: Belongs to the prion family.  
 DR EMBL; AY367642; AAQ64649.1; -;  
 DR HSP; P04925; IAG2.  
 DR InterPro; IPR000817; Prion.  
 DR Pfam; PF00377; Prion; 1.  
 DR Pfam; PF03991; Prion octapep; 6.  
 DR PRINTS; PR00341; PRION.  
 DR SMART; SM00157; PRP; 1.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 KW Prion.  
 SQ SEQUENCE 264 AA; 28642 MW; F90214038316A101 CRC64;

Query Match 100.0%; Score 250; DB 2; Length 264;  
 Best Local Similarity 100.0%; Pred. No. 1.4e-23;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 VYRPVDOYSNQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 46  
 Db 172 VYRPVDOYSNQNNFVHDCVNIIVKHEHTVTTTNGENFTETDIKMM 217

## RESULT 12

Q6UL05 PRELIMINARY; PRT; 264 AA.  
 ID Q6UL05  
 AC Q6UL05;  
 DT 05-JUL-2004 (TrEMBLrel. 27, Created)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)  
 DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)  
 DE Prion protein.  
 GN Name=Prp;  
 OS Bos taurus (Bovine).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
 OC Bovinae; Bos.  
 OX NCBI\_TaxID=9913;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Blood;  
 RA Wu R., Xie Q.G., Liu X.T., Chen H.T., Cheng J.;

```
RL Submitted (AUG-2003) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL; AY367640; AAQ64644.1; -.
DR HSSP; P04925; IAG2.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
SQ SEQUENCE 264 AA; 28641 MW; 3B64CF6E215F89A0 CRC64;

Query Match 100.0%; Score 250; DB 2; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.4e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 172 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 217
|||||

RESULT 13
Q6UL06 PRELIMINARY; PRT; 264 AA.
AC Q6UL06;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DE Prion protein.
DE Name=PrP;
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP TISSUE=Blood;
RC
RA Wu R., Xie Q.G., Liu X.T., Chen H.T., Cheng J.;
RL Submitted (AUG-2003) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL; AY367639; AAQ64646.1; -.
DR HSSP; P04925; IAG2.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
SQ SEQUENCE 264 AA; 28584 MW; D06747B5374541D0 CRC64;

Query Match 100.0%; Score 250; DB 2; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.4e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 172 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 217
|||||

RESULT 14
Q6UL07 PRELIMINARY; PRT; 264 AA.
AC Q6UL07;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE Prion protein.
DE Name=PrP;
OS Bos mutus grunniens (Yak).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovinae; Bos.
OX NCBI_TaxID=30521;
RN [1]
RP TISSUE=Blood;
RC
RA Wu R., Xie Q.G., Liu X.T., Chen H.T., Cheng J.;
RL Submitted (AUG-2003) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL; AY367635; AAQ64642.1; -.
DR HSSP; P04925; IAG2.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
SQ SEQUENCE 264 AA; 28642 MW; 1A909F038304293C CRC64;

Query Match 100.0%; Score 250; DB 2; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.4e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 172 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 217
|||||

RESULT 15
Q6UL09 PRELIMINARY; PRT; 264 AA.
AC Q6UL09;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE Prion protein.
DE Name=PrP;
OS Bos mutus grunniens (Yak).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovinae; Bos.
OX NCBI_TaxID=30521;
RN [1]
RP TISSUE=Blood;
RC
RA Wu R., Xie Q.G., Liu X.T., Chen H.T., Cheng J.;
RL Submitted (AUG-2003) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL; AY367635; AAQ64642.1; -.
DR HSSP; P04925; IAG2.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
SQ SEQUENCE 264 AA; 28642 MW; 1A909F038304293C CRC64;

Query Match 100.0%; Score 250; DB 2; Length 264;
Best Local Similarity 100.0%; Pred. No. 1.4e-23;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 46
Db 172 VYRPVDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMM 217
|||||
```



Qy	1	VYR	P	D	Q	S	N	Q	N	N	F	V	H	D	C	N	I	T	V	K	E	H	T	V	T	T	K	G	E	N	F	T	E	T	D	I	K	M	46
Db	172	VYR	P	D	Q	S	N	Q	N <td>N</td> <td>F</td> <td>V</td> <td>H</td> <td>D</td> <td>C</td> <td>N</td> <td>I</td> <td>T</td> <td>V</td> <td>K</td> <td>E</td> <td>H</td> <td>T</td> <td>V</td> <td>T</td> <td>T</td> <td>K</td> <td>G</td> <td>E</td> <td>N</td> <td>F</td> <td>T</td> <td>E</td> <td>T</td> <td>D</td> <td>I</td> <td>K</td> <td>M</td> <td>217</td>	N	F	V	H	D	C	N	I	T	V	K	E	H	T	V	T	T	K	G	E	N	F	T	E	T	D	I	K	M	217

Search completed: July 26, 2005, 11:59:31  
Job time : 82 secs

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GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: July 26, 2005, 11:38:22 ; Search time 91.5 Seconds  
(without alignments)  
194.437 Million cell updates/sec

Title: US-10-031-975-33\_COPY\_176\_221

Perfect score: 242

Sequence: 1 DQYSSQNNFVHDCVNTVKQ.....TKGENFTETDIKIMERVVEQ 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_16Dec04:\*

1: Geneseqp1980s:\*

2: Geneseqp1990s:\*

3: Geneseqp2000s:\*

4: Geneseqp2001s:\*

5: Geneseqp2002s:\*

6: Geneseqp2003s:\*

7: Geneseqp2003bs:\*

8: Geneseqp2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	242	100.0	258	4	AAB72370
2	234	96.7	255	2	AAR86717
3	234	96.7	255	2	AAW69662
4	234	96.7	255	2	AAW85903
5	234	96.7	255	4	AAW65855
6	234	96.7	255	5	ABP51789
7	234	96.7	255	6	ABU58870
8	234	96.7	255	6	AAE33229
9	234	96.7	255	8	ADK15536
10	234	96.7	255	8	ADJ10165
11	234	96.7	256	4	AAB72362
12	234	96.7	256	4	AAB72365
13	234	96.7	256	4	AAE08572
14	234	96.7	256	4	AAE08571
15	234	96.7	256	5	ABB04423
16	234	96.7	256	6	ABU07875
17	234	96.7	256	6	ABP57901
18	234	96.7	256	7	ADD24195
19	234	96.7	256	7	ADD24188
20	234	96.7	256	7	ADE06742
21	234	96.7	256	8	ADH44554
22	234	96.7	256	8	ADH44564
23	234	96.7	256	8	ADK15537
24	232	95.9	253	4	AAB72339
25	232	95.9	253	4	AAB72345

ALIGNMENTS

RESULT 1

AAB72370  
ID AAB72370 standard; peptide; 258 AA.

AC AAB72370;

DT 11-SEP-2003 (revised)

DT 17-MAY-2001 (first entry)

XX XX

DE Marsupial prion protein cellular form (PrPc) amino acid sequence.

XX KW Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;

XX KW prion disease; spongiform encephalopathies; Scrapie; marsupial;

XX KW bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.

XX OS Metatheria.

XX XX

FH Key Location/Qualifiers

FT Region 176..221

FT /note= "Stable region, specifically claimed in claim 3"

XX WO200107479-A2.

PD 01-FEB-2001.

XX 25-JUL-2000; 2000WO-GB002873.

XX PR 27-JUL-1999; 99GB-00017491.

XX PR 30-JUL-1999; 99GB-00017878.

XX (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.

XX Collinge J, Clarke AR, Waltho JP, Jackson GS, Hosszu LUP;

XX WPI; 2001-168538/17.

XX New prion peptide for treating, preventing and/or diagnosing prion diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in cows and Creutzfeldt-Jakob disease in humans.

XX Claim 3; Fig 5; 69pp; English.

XX This invention relates to a peptide fragment of a cellular form of prion protein PrPc located around a disulphide bond found in PrPc. The stable structure is a specific marker of PrPc but not soluble prion protein (PrPsc). The PrPc peptide sequences can be used to generate an antibody or binding agent that binds PrPc. The antibody is used to detect or remove PrPc, and may be used in preventative medicine. The antibody may

CC be used in the prevention, treatment or diagnosis of a prion disease,  
 CC e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine  
 CC spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease  
 CC (CJD) in humans. The present sequence represents the cellular form of  
 CC marsupial prion protein, the stable region of the protein may be used in  
 CC the production of anti-PrPc antibodies. (Updated on 11-SEP-2003 to  
 CC standardise OS field)  
 XX  
 SQ Sequence 258 AA;

Query Match 100.0%; Score 242; DB 4; Length 258;  
 Best Local Similarity 100.0%; Pred. No. 1.7e-22;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFNTETDIKIMERVVEQ 46  
 |||||  
 Db 172 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFNTETDIKIMERVVEQ 217

RESULT 2  
 AAR86717  
 ID AAR86717 standard; protein; 255 AA.

XX  
 AC AAR86717;

DT 15-OCT-1996 (first entry)

XX Sheep prion protein, HuPrP.

XX Chimeric gene; chimeric prion; transgenic animal; diagnosis;  
 KW spongiform encephalopathy; PrP; central nervous system; CNS;  
 KW Creutzfeldt-Jakob disease; CJD; BSE.

XX Ovis aries.

XX WO9531466-A1.

XX 23-NOV-1995.

XX 10-APR-1995; 95WO-US004426.

XX 13-MAY-1994; 94US-00242188.

XX (REGC ) UNIV CALIFORNIA.

XX Prusiner SB, Scott MR, Telling G;

XX WPI; 1996-010868/01.

XX Chimeric prion protein gene - for formation of a transgenic animal  
 PT susceptible to prion infection by prion(s) normally specific for a  
 PT different species.

XX Disclosure; Page 43-44; 65pp; English.

XX Pathogenic prions in a sample can be detected by injecting the sample to  
 CC be tested into a transgenic mouse. The mouse genome includes a chimeric  
 CC PrP gene in which the gene includes a portion of a gene of the animal  
 CC (e.g. sheep) in danger of infection from prions in the sample. Preferred  
 CC transgenic mice express a chimeric prion protein (PrP) in which a segment  
 CC of the mouse PrP, MoPrP, is replaced with the corresponding sheep PrP  
 CC sequence

XX Sequence 255 AA;

Query Match 96.7%; Score 234; DB 2; Length 255;  
 Best Local Similarity 95.7%; Pred. No. 1.7e-21;  
 Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFNTETDIKIMERVVEQ 46  
 |||||  
 Db 169 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFNTETDIKIMERVVEQ 214

RESULT 3  
 AAW69662  
 ID AAW69662 standard; protein; 255 AA.

XX  
 AC AAW69662;

XX 25-MAR-2003 (revised)

DT 19-OCT-1998 (first entry)

XX Sheep prion protein BoPrP.

XX Sheep; prion protein; PrP; transgenic animal; artificial gene;  
 KW Creutzfeldt Jakob disease; CJD; neurodegenerative disease; human.

XX Ovis sp.

XX US5792901-A.

XX 11-AUG-1998.

XX 30-JUL-1996; 96US-00692892.

XX 13-MAY-1994; 94US-00242188.

XX 31-JUL-1995; 95US-00509261.

XX 31-AUG-1995; 95US-00521992.

XX (REGC ) UNIV CALIFORNIA.

XX Scott MR, Telling GC, Prusiner SB;

XX WPI; 1998-456207/39.

XX Transgenic mouse with altered PrP gene - for detecting disease-causing  
 PT prions.

XX Example 8; Fig 5; 37pp; English.

XX A transgenic mouse has been developed which comprises a genome in which  
 CC both alleles of an endogenous PrP (prion protein) gene of the mouse are  
 CC ablated, the genome containing operatively inserted all exogenous non-  
 CC mouse PrP gene. The mouse is susceptible to infection with prions which  
 CC generally only infect a genetically diverse mammal due to the presence of  
 CC the exogenous PrP gene and ablated endogenous PrP gene. It exhibits  
 CC symptoms of prion disease within 200 days or less after inoculation with  
 CC prions which generally only infect a genetically diverse mammal. Also  
 CC described in the present invention are: (A) a method of producing the  
 CC transgenic mouse; and (B) determining the presence of infectious prions  
 CC in a sample obtained from a bovine. The transgenic mouse is used to  
 CC detect for Creutzfeldt Jakob disease (CJD), a fatal neurodegenerative  
 CC disease of humans caused by prions. The present sequence represents sheep  
 CC prion protein (ShPrP), from the present invention. (Updated on 25-MAR-  
 CC 2003 to correct PF field.)

XX Sequence 255 AA;

Query Match 96.7%; Score 234; DB 2; Length 255;  
 Best Local Similarity 95.7%; Pred. No. 1.7e-21;  
 Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFNTETDIKIMERVVEQ 46  
 |||||  
 Db 169 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFNTETDIKIMERVVEQ 214

RESULT 4  
 AAW85903

ID AAW85903 standard; peptide; 255 AA.

XX  
 AC AAW85903;

XX 12-FEB-1999 (first entry)

DT

```

DE Sheep prion protein (PrP) sequence.
XX PrP; PrP(Sc); scrapie; isoform; antibody; prion; CJD; screening;
XX Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;
XX cosmetic; therapeutic; sheep.
XX Ovis sp.
XX US5846533-A.
XX 08-DEC-1998.
XX 13-SEP-1996; 96US-00713939.
XX 14-SEP-1995; 95US-00528104.
XX (REGC ) UNIV CALIFORNIA.
XX (SCRI ) SCRIPPS RES INST.
XX Prusiner SB, Williamson RA, Burton DR;
XX WPI; 1999-058996/05.
XX Antibody specific for scrapie isoform of prion protein - useful for
XX diagnosis and therapy.
XX Disclosure; Col 43-46; 58pp; English.
XX This represents a sheep prion protein (PrP) sequence. The invention
XX relates to an antibody that is capable of binding to native PrP(Sc), the
XX scrapie isoform of PrP. The antibody is produced by a method that
XX comprises synthesising a library of antibodies on phages, contacting the
XX phages with a composition containing PrP proteins, isolating phages that
XX bind to native PrP(Sc) in situ, obtaining an antibody from the phages,
XX and optionally analysing the phages to determine a nucleic acid sequence
XX encoding an amino acid sequence to which the native PrP(Sc) binds. The
XX antibody is used to detect disease-associated PrP, especially in
XX Creutzfeldt-Jakob disease (CJD) and distinguish it from normal PrP. They
XX can also be used to neutralise the infectivity of PrP(Sc). Assays using
XX the antibodies can be used to screen for disease-associated PrP in
XX pharmaceutical products, foods and cosmetics or for therapeutic purposes
XX
XX Sequence 255 AA;
XX Query Match 96.7%; Score 234; DB 2; Length 255;
XX Best Local Similarity 95.7%; Pred. No. 1.7e-21;
XX Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
XX
XX 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFNTETDIKIMERVVEQ 46
XX ||||:|||||
XX 169 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFNTETDIKIMERVVEQ 214

RESULT 5
AAG65855
ID AAG65855 standard; protein; 255 AA.
XX
XX AAG65855;
XX
XX 11-FEB-2002 (first entry)
XX
XX Ovine prion protein (PrP) sequence.
XX PrP; prion protein; Creutzfeldt-Jakob disease; familial insomnia; PrP-Sc;
XX scrapie; Gerstmann-Strassler-Scheinker disease.
XX Ovis sp.
XX US6290954-B1.
XX
XX 18-SEP-2001.
XX
XX 06-MAR-1998; 98US-00036579.

DE Sheep prion protein (PrP) sequence.
XX PrP; PrP(Sc); scrapie; isoform; antibody; prion; CJD; screening;
XX Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;
XX cosmetic; therapeutic; sheep.
XX Ovis sp.
XX US5846533-A.
XX 08-DEC-1998.
XX 13-SEP-1996; 96US-00713939.
XX 14-SEP-1995; 95US-00528104.
XX (REGC ) UNIV CALIFORNIA.
XX (SCRI ) SCRIPPS RES INST.
XX Prusiner SB, Williamson RA, Burton DR;
XX WPI; 2001-637939/73.
XX Detecting a scrapie isoform of the prion protein (PrP-Sc) in a source,
XX particularly useful for detecting e.g. Creutzfeldt-Jakob disease or
XX Gerstmann-Strassler-Scheinker disease, by contacting the source with PrP-
XX Sc antibodies.
XX Disclosure; Fig 4; 58pp; English.
XX The invention provides a method for detecting a scrapie isoform of the
XX prion protein (PrP-Sc) in a source. The method involves contacting the
XX source suspected of containing native PrP-Sc with a diagnostic amount of
XX an antibody characterized by its ability to bind to native PrP-Sc in
XX situ. The method is useful for detecting PrP-Sc in a source, which is
XX particularly useful for detecting Creutzfeldt-Jakob disease, fatal
XX familial insomnia or Gerstmann-Strassler-Scheinker disease. The present
XX sequence represents the ovine PrP sequence
XX
XX Sequence 255 AA;
XX Query Match 96.7%; Score 234; DB 4; Length 255;
XX Best Local Similarity 95.7%; Pred. No. 1.7e-21;
XX Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
XX
XX 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFNTETDIKIMERVVEQ 46
XX ||||:|||||
XX 169 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFNTETDIKIMERVVEQ 214

RESULT 6
ABP51789
ID ABP51789 standard; protein; 255 AA.
XX
XX ABP51789;
XX
XX 03-OCT-2002 (first entry)
XX
XX Ovine prion protein (PrP) SEQ ID NO:4.
XX
XX Prion protein; PrP; scrapie; PrPSc; prion disease; immunoassay;
XX detection.
XX Ovis sp.
XX US6372214-B1.
XX
XX 16-APR-2002.
XX
XX 13-APR-2000; 2000US-00550374.
XX
XX 14-SEP-1995; 95US-00528104.
XX 13-SEP-1996; 96US-00713939.
XX 06-MAR-1998; 98US-00036579.
XX
XX (REGC ) UNIV CALIFORNIA.
XX (SCRI ) SCRIPPS RES INST.
XX Prusiner SB, Williamson RA, Burton DR;
XX WPI; 2002-433675/46.
XX
XX Immunoassays for detecting scrapie isoforms of prion protein (PrPSc) and
XX for purifying PrPSc from samples, useful e.g. in diagnosing PrPSc disease
XX and testing pharmaceuticals for contamination.

```

PS Disclosure; Fig 4; 58pp; English.

XX The present invention describes methods for detecting scrapie isoforms of

CC prion protein (PrP<sup>Sc</sup>) infection in dead animals, purifying materials

CC suspected of containing PrP<sup>Sc</sup> proteins and treating materials, using

CC antibodies specific for PrP<sup>Sc</sup>. Also described: (1) method of determining

CC PrP<sup>Sc</sup> infection in a dead animal, comprising: (a) extracting tissue from

CC an animal that has died; (b) contacting the tissue with an antibody

CC characterised by its ability to bind to native PrP<sup>Sc</sup> in situ (the

CC antibody binds to a form of PrP<sup>Sc</sup> specific to the animal that has died);

CC and (c) determining if the antibody has bound to PrP<sup>Sc</sup> (the presence of

CC PrP<sup>Sc</sup> in the tissue is indicative of PrP<sup>Sc</sup> infection); (2) a method of

CC purifying a material suspected of containing a PrP<sup>Sc</sup> protein, comprising:

CC (a) contacting the material with an antibody (characterized by its

CC ability to bind native PrP<sup>Sc</sup> in situ) which is bound to a support surface

CC; and (b) removing material not bound to the antibody; (3) a method of

CC treating a material, comprising applying (to the material) an antibody

CC that binds native PrP<sup>Sc</sup> in situ. The methods are used for diagnosing and

CC detecting prion disease (scrapie) in dead animal tissue (i.e.

CC immunoassays), for separating PrP<sup>Sc</sup> proteins from biological samples

CC (i.e. immunopurification) and for treating materials. The present

CC sequence represents the ovine prion protein (PrP) which is given in the

CC exemplification of the present invention

XX

SQ Sequence 255 AA;

Query Match 96.7%; Score 234; DB 5; Length 255;

Best Local Similarity 95.7%; Pred. No. 1.7e-21;

Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDTIKIMERVVEQ 46

DB 169 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDTIKIMERVVEQ 214

RESULT 7

ABUS8870

ID ABUS8870 standard; protein; 255 AA.

AC ABUS8870;

XX

XX 15-APR-2003 (first entry)

DT

XX

DE Sheep prion protein (PrP).

XX

KW Prion protein; native prion protein; PrP<sup>Sc</sup>; phage display library;

KW pharmaceutical; food; cosmetic; prion neutralisation; anti-PrP-antibody;

KW scrapie; bovine spongiform encephalopathy; BSE; mad cow disease;

KW feline spongiform encephalopathy.

XX

OS Ovis sp.

XX

XX US2002150571-A1.

XX

XX 17-OCT-2002.

XX

XX 30-AUG-2001; 2001US-00943906.

PF

XX

XX 14-SEP-1995; 95US-00528104.

PR

XX 13-SEP-1996; 96US-00713939.

PR

XX 06-MAR-1998; 98US-00036579.

PR

XX 13-APR-2000; 2000US-00550374.

XX

XX (PRUS/) PRUSINER S B.

PA

XX (WILL/) WILLIAMSON R A.

PA

XX (BURT/) BURTON D R.

XX

PI Prusiner SB, Williamson RA, Burton DR;

XX

XX WPI; 2003-198264/19.

DR

XX

XX Novel antibody that has the ability to specifically bind to native prion

PT protein PrP<sup>Sc</sup> in situ, useful for detecting human PrP<sup>Sc</sup> in a source, for

CC

determining the cause of death of an animal, or in therapy.

XX

XX Disclosure; Fig 4; 36pp; English.

XX The invention describes an antibody (I) that has the ability to

CC specifically bind to native prion protein PrP<sup>Sc</sup> in situ, where (I) is

CC produced by synthesising a library of antibodies on phage, panning the

CC library against a sample by bringing the phage into contact with a

CC composition comprising PrP proteins, and isolating phage which bind PrP<sup>Sc</sup>

CC protein. (I) is useful for: detecting human PrP<sup>Sc</sup> in a source; for

CC determining the cause of death of an animal (e.g. scrapie, bovine

CC spongiform encephalopathy (BSE) or mad cow disease and feline spongiform

CC encephalopathy); for purifying a material suspected of containing PrP<sup>Sc</sup>

CC protein, by contacting the material with a sufficient amount of (I) which

CC is bound to a support surface and removing material not bound to (I); for

CC treating a material by adding to the material a sufficient amount of (I)

CC to neutralise PrP<sup>Sc</sup> protein infectivity; in an assay to screen for the

CC presence of prions (i.e. PrP<sup>Sc</sup>) in products such as pharmaceuticals, food

CC or cosmetics, in prion neutralisation to purify a product, in extraction

CC of prion proteins, and in therapy. (I) provides a fast, efficient and

CC cost effective assay for detecting the presence of PrP<sup>Sc</sup> in a sample, and

CC binds to a relatively high percentage of the infectious form of PrP<sup>Sc</sup>.

CC This is the amino acid sequence of a prion protein used in the creation

CC of an anti-Prion protein-antibody

XX

SQ Sequence 255 AA;

Query Match 96.7%; Score 234; DB 6; Length 255;

Best Local Similarity 95.7%; Pred. No. 1.7e-21;

Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDTIKIMERVVEQ 46

DB 169 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDTIKIMERVVEQ 214

RESULT 8

AAE33229

ID AAE33229 standard; protein; 255 AA.

XX

XX AAE33229;

XX

XX 02-MAY-2003 (first entry)

DT

XX

DE Ovine PrP protein.

XX

KW Ovine; pathogenic; prion protein; PrP<sup>Sc</sup>; kuru; Creutzfeldt-Jakob disease;

KW vaccine; neuroprotective; immunostimulant.

XX

OS Ovis sp.

XX

XX WO200287502-A2.

XX

XX 07-NOV-2002.

XX

XX 25-APR-2002; 2002WO-US013346.

PF

XX

XX 01-MAY-2001; 2001US-0287971P.

PR

XX

XX (REGC ) UNIV CALIFORNIA.

XX

XX Prusiner SB, Peretz D, Williamson RA, Burton DR;

PI

XX

XX WPI; 2003-140150/13.

DR

XX

XX Composition for clearing a disease conformation of a protein, especially

PT PrP<sup>Sc</sup> protein, and treating, e.g., Creutzfeldt-Jakob disease comprises

PT molecules, e.g., antibodies which bind and prevent conversion to disease

PT conformation.

XX

XX Disclosure; Page 38; 38pp; English.

PS

XX The invention relates to composition for clearing a disease conformation

of a protein, especially pathogenic prion protein (PrP<sup>Sc</sup>) from a cell. The composition comprises molecules which bind a number of epitopes on a first conformation of a protein, where the conversion to a second conformation is prevented to allow a cell to clear protein in the second conformation. The composition is useful for preventing or treating, e.g., kuru or Creutzfeldt-Jakob disease. It is also used as a vaccine. The present sequence is ovine PrP protein

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Query Match          96.7%; Score 234; DB 6; Length 255;
Best Local Similarity 95.7%; Pred. No. 1.7e-21;
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
```

QY 1 DQYSSQNNFVHDCVNI TVKQHTTTTTTKGENFTETDIKIMERVVEQ 46

Db 169 DQYSNONNFVHDCVNI TVKQHTVT TTTTKGFNTETDIKIMERVVEQ 214

RESULT 9  
ADK15536  
ID ADK15536 standard; protein; 255 AA.

DT 06-MAY-2004 (first entry)

Ovine PrP(Sc), seq id 13.

Neuroprotective; prion disease; CpG; prion protein; PrP;  
transmissible spongiform encephalopathy; TSE; scrapie;  
bovine spongiform encephalopathy; BSE; variant Creutzfeldt-Jakob disease;  
vCJD; iatrogenic Creutzfeldt-Jakob disease; iCJD.

PN WO2004007743-A2.

22-JAN-2004.

17-JUL-2003; 2003WO-IB003727.

PR 17-JUL-2002; 2002US-0396432P.

PA (COLE-) COLEY PHARM GMBH.

PI Wagner H, Kretzschmar H, Sethi S:

DR WPI; 2004-122970/12.

Treating a prion disease, e.g. transmissible spongiform encephalopathy, PT  
PT scrapie, bovine spongiform encephalopathy by administering a Cpg nucleic PT  
PT acid to a subject having or at risk of developing prion disease.

PS Disclosure; SEQ ID NO 13; 57pp; English.

The invention relates to a method for treating a prion disease in a subject, comprising administering to a subject having or at risk of developing a prion disease a CpG nucleic acid in an amount to treat the prion disease. Also disclosed is a method for inducing an immune response to a prion protein. The method is useful for treating prion disease, e.g. transmissible spongiform encephalopathy (TSE), scrapie, bovine spongiform encephalopathy (BSE), variant Creutzfeldt-Jakob disease (vCJD) or iatrogenic Creutzfeldt-Jakob disease (iCJD). Sequences given in ADK15524-ADK15538 represent prion proteins and nucleic acid sequences from various species.

Sequence 255 AA;

```
Query Match          96.7%; Score 234; DB 8; Length 255;
Best Local Similarity 95.7%; Pred. No. 1.7e-21;
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
```

Qy 1 DQYSSQNPFVHDCNITVKQHTTTTTKGFNFETETDIKIMERVVEQ 46  
 ||||:|||||  
 Db 169 DQYSSQNPFVHDCNITVKQHTTTTTKGFNFETETDIKIMERVVEQ 214

**RESULT 10**

ADJ10165  
ID ADJ10165 standard; protein; 255 AA.

DT 18-NOV-2004 (first entry)

DE Sheep cellular prion protein (Prp) SeqID 4.

sheep; PrP; prion protein; PrP<sup>Sc</sup>; diagnostic assay; scrapie;  
 bovine spongiform encephalopathy; BSE; feline spongiform encephalopathy;  
 kuru; Creutzfeldt-Jacob disease; CJD; Gerstmann-Sträussler-Scheinker; GSS  
 fatal familial insomnia; FFI; neuroprotective.

XX PN US2003228303-A1.

XX  
PD 11-DEC-2003.

09-MAY-2003: 2003US-00435602.

AA 14-SEP-1995; 95US-00528104.

06-MAR-1998; 98US-00036579.

PR 30-AUG-2001; 2001US-00943906.

PA (REGC ) UNIV CALIFORNIA.

[illegible]XX  
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1046 1047 104

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PT useful for treating scrapie, bovine spon-

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scrapie isoform of the prion protein (PrP<sup>Sc</sup>). Specifically, it refers to antibodies produced by phage display methodology that show a high degree of binding affinity and specificity, and can neutralise the infectivity of prions. The present invention describes using labelled antibodies for an in vivo diagnostic assay that can be used to determine the presence of human PrP<sup>Sc</sup> proteins that are associated with a particular disease.

Sequence 255 AA;

Query Match 96.7%; Score 234; DB 8; Length 255;  
Best Local Similarity 95.7%; Pred. No. 1.7e-21;  
Matches 44; Conservative 1; Mismatches 1; Indels

Qy	1	DOYSSQNFFVHDCVNITVKQHNTTTTTKGFNFTETDIKIMERVV EQ 46
		:
Db	169	DOYSNQNNFVHDCVNITVKQHTVTTTTKGFNFTETDIKIMERVV EQ 214





XX PN EP1120655-A2.  
XX PD 01-AUG-2001.  
XX PF 26-JAN-2001; 2001EP-00300723.  
XX PR 27-JAN-2000; 2000JP-00019195.  
XX PA (RIKE ) RIKEN KK.  
XX PI Itohara S, Onodera T, Tsubone H;  
XX DR WPI; 2001-524142/58.  
XX DR N-PSDB; AAD15275.  
XX PT Detecting aberrant animal-derived prion gene, by introducing prion gene  
PT of an animal into a mouse to produce a prion gene modified mouse and  
PT determining whether the prion gene modified mouse exhibits a heart  
PT anomaly.  
XX PS Disclosure; Fig 2; 27pp; English.  
XX SQ Sequence 256 AA;  
XX  
XX CC The invention relates to a method which is used for detecting aberrant  
CC animal-derived prion gene. The method involves introducing Oryx demmah  
CC prion gene (Or-Prnp) into a mouse to produce a prion gene modified mouse  
CC and determining whether the prion gene modified mouse exhibit heart  
CC anomalies. The prion gene modified mouse is useful for development and  
CC safety testing of cardiac pharmaceuticals for human and animals having  
CC underlying diseases or life-style related diseases. It is also useful for  
CC detecting a drug, which reduces abnormal waves in an electrocardiogram.  
CC The present sequence is Oryx demmah prion protein  
XX  
XX SQ Sequence 256 AA;  
XX  
XX Query Match 96.7%; Score 234; DB 4; Length 256;  
XX Best Local Similarity 95.7%; Pred. No. 1.8e-21;  
XX Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
XX  
XX QY 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDTIKIMERVVEQ 46  
XX ||||:||||||||||||||||||||||||||||||||||||||||||  
XX Db 170 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDTIKIMERVVEQ 215  
XX  
XX RESULT 14  
XX AA080571  
XX ID AA080571 standard; protein; 256 AA.  
XX AC AA080571;  
XX XX 15-NOV-2001 (first entry)  
XX DT  
XX DE Sheep prion protein.  
XX DE Aberrant prion gene; heart anomaly; cardiac pharmaceutical; Prnp;  
XX KW life-style related disease; sheep.  
XX XX Ovis sp.  
XX OS  
XX PN EP1120655-A2.  
XX PD 01-AUG-2001.  
XX PF 26-JAN-2001; 2001EP-00300723.  
XX PR 27-JAN-2000; 2000JP-00019195.  
XX PA (RIKE ) RIKEN KK.  
XX PI Itohara S, Onodera T, Tsubone H;  
XX DR WPI; 2001-524142/58.  
XX DR N-PSDB; AAD15275.  
XX

XX PT Detecting aberrant animal-derived prion gene, by introducing prion gene  
PT of an animal into a mouse to produce a prion gene modified mouse and  
PT determining whether the prion gene modified mouse exhibits a heart  
PT anomaly.  
XX PS Disclosure; Fig 2; 27pp; English.  
XX SQ Sequence 256 AA;  
XX  
XX CC The invention relates to a method which is used for detecting aberrant  
CC animal-derived prion gene. The method involves introducing Oryx demmah  
CC prion gene (Or-Prnp) into a mouse to produce a prion gene modified mouse  
CC and determining whether the prion gene modified mouse exhibit heart  
CC anomalies. The prion gene modified mouse is useful for development and  
CC safety testing of cardiac pharmaceuticals for human and animals having  
CC underlying diseases or life-style related diseases. It is also useful for  
CC detecting a drug, which reduces abnormal waves in an electrocardiogram.  
CC The present sequence is sheep prion protein  
XX  
XX SQ Sequence 256 AA;  
XX  
XX Query Match 96.7%; Score 234; DB 4; Length 256;  
XX Best Local Similarity 95.7%; Pred. No. 1.8e-21;  
XX Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
XX  
XX QY 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDTIKIMERVVEQ 46  
XX ||||:||||||||||||||||||||||||||||||||||||||||||  
XX Db 170 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDTIKIMERVVEQ 215  
XX  
XX RESULT 15  
XX ABB04423  
XX ID ABB04423 standard; protein; 256 AA.  
XX AC ABB04423;  
XX XX 04-MAR-2002 (first entry)  
XX DT  
XX DE Goat prion protein PrP.  
XX XX  
XX KW Goat; prion protein; PrP; antiviral; HIV; prion disease; kuru; virucide;  
XX KW antibacterial; neuroprotective; anti-HIV; Creutzfeld-Jakob disease;  
XX KW Gerstmann-Strausler-Scheinker disease; fatal familial insomnia;  
XX KW bovine spongiform encephalitis; scrapie.  
XX OS Capra hircus.  
XX XX WO200183747-A2.  
XX PN  
XX PD 08-NOV-2001.  
XX PF 30-APR-2001; 2001WO-FR001336.  
XX PR 28-APR-2000; 2000FR-00005535.  
XX XX (INRM ) INSERM INST NAT SANTE & RECH MEDICALE.  
XX XX Leblanc P, Darlix J, Gabus-Darlix C;  
XX XX WPI; 2002-049350/06.  
XX DR  
XX PT New polypeptides, useful as antiviral agents, comprise their prion  
XX PT proteins able to bind nucleic acid, nucleocapsid proteins, and ligands  
XX PT for use as antiprion agents.  
XX XX  
XX PS Disclosure; Fig 9; 80pp; French.  
XX  
XX CC The present invention relates to normal (PrPc) or abnormal (PrPsc) human  
XX CC or animal prion proteins which are able to bind to DNA or RNA,  
XX CC particularly of viral, especially retroviral, origin and to nucleocapsid  
XX CC proteins (NCP) of human or animal retroviruses. These can be used as  
XX CC antiviral agents, particularly against human immune deficiency virus  
XX CC (HIV), and in the treatment of prion diseases including Creutzfeld-Jakob  
XX CC disease, Gerstmann-Strausler-Scheinker disease, fatal familial



GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: July 26, 2005, 11:44:13 ; Search time 23.5 Seconds  
(without alignments)  
146.122 Million cell updates/sec

Title: US-10-031-975-33\_COPY\_176\_221

Perfect score: 242

Sequence: 1 DQYSSQNNFVHDCVNITVKQ.....TKGENFTETDIKIMERVVEQ 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Issued Patents AA.\*

1: /cgn2\_6/ptodata/1/iaa/5A\_COMB.pep.\*

2: /cgn2\_6/ptodata/1/iaa/5B\_COMB.pep.\*

3: /cgn2\_6/ptodata/1/iaa/6A\_COMB.pep.\*

4: /cgn2\_6/ptodata/1/iaa/6B\_COMB.pep.\*

5: /cgn2\_6/ptodata/1/iaa/PTCUS\_COMB.pep.\*

6: /cgn2\_6/ptodata/1/iaa/backfiles.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	242	100.0	259	4	US-09-431-887-33
2	234	96.7	255	1	US-08-242-188-4
3	234	96.7	255	1	US-08-509-261A-4
4	234	96.7	255	1	US-08-660-626-10
5	234	96.7	255	1	US-08-692-892-4
6	234	96.7	255	2	US-08-713-939A-4
7	234	96.7	255	2	US-08-868-162A-24
8	234	96.7	255	3	US-09-031-168-10
9	234	96.7	255	3	US-09-036-579-4
10	234	96.7	255	3	US-09-550-374-4
11	234	96.7	255	4	US-09-943-906-4
12	234	96.7	255	4	US-09-669-516C-10
13	234	96.7	256	4	US-09-431-887-25
14	234	96.7	256	4	US-09-431-887-28
15	232	95.9	253	4	US-09-431-887-2
16	232	95.9	253	4	US-09-431-887-8
17	232	95.9	253	4	US-09-431-887-19
18	231	95.5	264	4	US-09-431-887-27
19	230	95.0	142	1	US-08-556-823-2
20	230	95.0	208	3	US-09-128-450-18
21	230	95.0	208	3	US-09-823-494-18
22	230	95.0	254	3	US-09-128-450-26
23	230	95.0	254	3	US-09-823-494-26
24	230	95.0	256	3	US-08-128-450-22
25	230	95.0	256	3	US-08-823-494-22
26	229	94.6	245	4	US-09-431-887-5
27	229	94.6	245	4	US-09-431-887-15

Sequence 17, Appl  
Sequence 32, Appl  
Sequence 3, Appl  
Sequence 4, Appl  
Sequence 7, Appl  
Sequence 9, Appl  
Sequence 10, Appl  
Sequence 11, Appl  
Sequence 12, Appl  
Sequence 14, Appl  
Sequence 16, Appl  
Sequence 18, Appl  
Sequence 1, Appl  
Sequence 7, Appl  
Sequence 1, Appl  
Sequence 1, Appl  
Sequence 21, Appl

28 229 94.6 252 4 US-09-431-887-17  
29 229 94.6 252 4 US-09-431-887-32  
30 229 94.6 253 4 US-09-431-887-3  
31 229 94.6 253 4 US-09-431-887-4  
32 229 94.6 253 4 US-09-431-887-7  
33 229 94.6 253 4 US-09-431-887-9  
34 229 94.6 253 4 US-09-431-887-10  
35 229 94.6 253 4 US-09-431-887-11  
36 229 94.6 253 4 US-09-431-887-12  
37 229 94.6 253 4 US-09-431-887-14  
38 229 94.6 253 4 US-09-431-887-16  
39 229 94.6 254 1 US-09-431-887-18  
40 229 94.6 254 1 US-08-242-188-1  
41 229 94.6 254 1 US-08-509-261A-1  
42 229 94.6 254 1 US-08-660-626-7  
43 229 94.6 254 1 US-08-692-892-1  
44 229 94.6 254 2 US-08-713-939A-1  
45 229 94.6 254 2 US-08-868-162A-21

#### ALIGNMENTS

##### RESULT 1

US-09-431-887-33  
; Sequence 33, Application US/09431887  
; Patent No. 6534036  
; GENERAL INFORMATION:  
; APPLICANT: D-Gen Limited  
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE  
; FILE REFERENCE: ICOT/P21952  
; CURRENT APPLICATION NUMBER: US/09/431,887  
; CURRENT FILING DATE: 1999-11-02  
; PRIOR APPLICATION NUMBER: GB 9824091.4  
; PRIOR FILING DATE: 1999-11-04  
; NUMBER OF SEQ ID NOS: 37  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 33  
; LENGTH: 259  
; TYPE: PRT  
; ORGANISM: Trichosurus vulpecula  
US-09-431-887-33

Query Match 100.0%; Score 242; DB 4; Length 259;  
Best Local Similarity 100.0%; Pred. No. 1.2e-25;  
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DQYSSQNNFVHDCVNITVKQHTTTTTTKGENFTETDIKIMERVVEQ 46

Db 172 DQYSSQNNFVHDCVNITVKQHTTTTTTKGENFTETDIKIMERVVEQ 217

##### RESULT 2

US-08-242-188-4  
; Sequence 4, Application US/08242188  
; Patent No. 5565186  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: Scott, Michael R.  
; APPLICANT: Telling, Glenn  
; TITLE OF INVENTION: METHOD OF DETECTING PRIONS IN A SAMPLE  
; NUMBER OF SEQUENCES: 4  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Karl Bosicevic  
; STREET: 2200 Sand Hill Road  
; CITY: Menlo Park  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 94025  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/242,188  
FILING DATE: 13-MAY-1994  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Bozicevic, Karl  
REGISTRATION NUMBER: 28,807  
REFERENCE/DOCKET NUMBER: 6510/014001  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 854-5277  
TELEFAX: (415) 854-0875  
INFORMATION FOR SEQ ID NO: 4:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 255 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
ORIGINAL SOURCE:  
ORGANISM: SHEEP PRION PROTEIN, ShPrP  
US-08-242-188-4

Query Match 96.7%; Score 234; DB 1; Length 255;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DOYSSQNNFVHDCVNITVKQHTTTTTKGFETDTIKIMERVVEQ 46  
DB 169 DOYSSQNNFVHDCVNITVKQHTTTTTKGFETDTIKIMERVVEQ 214

RESULT 3  
US-08-509-261A-4  
Sequence 4, Application US/08509261A  
Patent No. 5783244  
GENERAL INFORMATION:  
APPLICANT: Prusiner, Stanley B.  
APPLICANT: Scott, Michael R.  
APPLICANT: Telling, Glenn  
TITLE OF INVENTION: Method of Detecting Prions  
TITLE OF INVENTION: in a Sample and Transgenic Animal Used fore  
NUMBER OF SEQUENCES: 4  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Bozicevic & Reed, LLP  
STREET: 285 Hamilton Avenue, Suite 200  
CITY: Palo Alto  
STATE: CA  
COUNTRY: USA  
ZIP: 94301  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FastSeq for Windows Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/509,261A  
FILING DATE: 31-JUL-1995  
CLASSIFICATION: 800  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER:  
FILING DATE:  
ATTORNEY/AGENT INFORMATION:  
NAME: Bozicevic, Karl  
REGISTRATION NUMBER: 28,807  
REFERENCE/DOCKET NUMBER: 6510-030001  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 650-327-3400  
TELEFAX: 650 327-3231  
TELEX:  
INFORMATION FOR SEQ ID NO: 4:

SEQUENCE CHARACTERISTICS:  
LENGTH: 255 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
US-08-509-261A-4  
Query Match 96.7%; Score 234; DB 1; Length 255;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DOYSSQNNFVHDCVNITVKQHTTTTTKGFETDTIKIMERVVEQ 46  
DB 169 DOYSSQNNFVHDCVNITVKQHTTTTTKGFETDTIKIMERVVEQ 214

RESULT 4  
US-08-660-626-10  
Sequence 10, Application US/08660626  
Patent No. 5789655  
GENERAL INFORMATION:  
APPLICANT: Stanley B. Prusiner  
APPLICANT: Glenn C. Telling  
APPLICANT: Fred E. Cohen  
APPLICANT: Michael R. Scott  
TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING  
TITLE OF INVENTION: EPIPOPE-TAGGED PROTEINS  
NUMBER OF SEQUENCES: 13  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Fish & Richardson  
STREET: 2200 Sand Hill Road, Suite 100  
CITY: Menlo Park  
STATE: California  
COUNTRY: USA  
ZIP: 94025  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Asclii  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/660,626  
FILING DATE:  
CLASSIFICATION: 435  
ATTORNEY/AGENT INFORMATION:  
NAME: Valeta Gregg  
REGISTRATION NUMBER: 35,127  
REFERENCE/DOCKET NUMBER: 07532/003001  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 322-5070  
TELEFAX: (415) 854-0875  
INFORMATION FOR SEQ ID NO: 10:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 255 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
ORIGINAL SOURCE:  
ORGANISM: SHEEP PRION PROTEIN, ShPrP  
US-08-660-626-10

Query Match 96.7%; Score 234; DB 1; Length 255;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DOYSSQNNFVHDCVNITVKQHTTTTTKGFETDTIKIMERVVEQ 46  
DB 169 DOYSSQNNFVHDCVNITVKQHTTTTTKGFETDTIKIMERVVEQ 214

RESULT 5  
US-08-692-892-4

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; SOFTWARE: FastSeq Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/713,939A
; FILING DATE: 13-SEP-1996
; CLASSIFICATION: 436
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 65510/059001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-854-5277
; TELEFAX: 415-854-0875
; TELEX:
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 255 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; US-08-713-939A-4

Query Match 96.7%; Score 234; DB 2; Length 255;
Best Local Similarity 95.7%; Pred. No. 1.6e-24;
Matches 44; Conservative 1; Mismatches 1; Indels

QY 1 DQYSSQNNFVHDCNITVKQHTTTTTTGGENFTETDIKIMERVVEQ 46
|||||
DB 169 DQYSSQNNFVHDCNITVKQHTTTTTTGGENFTETDIKIMERVVEQ 214
|||||

RESULT 7
US-08-868-162A-24
; Sequence 24, Application US/08868162A
; Patent No. 5962669
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley
; APPLICANT: Cohen, Fred
; APPLICANT: James, Thomas
; APPLICANT: Kaneko, Kayotoshi
; TITLE OF INVENTION: Prion Protein Modulator Factor
; TITLE OF INVENTION:
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Bozicevic & Reed, LLP
; STREET: 285 Hamilton Avenue, Suite 200
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94301
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/868,162A
; FILING DATE: 03-JUN-1997
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Bozicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 6510-083001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 650-327-3400
; TELEFAX: 650 327-3231
; TELEX:

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;; INFORMATION FOR SEQ ID NO: 24:  
;; SEQUENCE CHARACTERISTICS:  
;; LENGTH: 255 amino acids  
;; TYPE: amino acid  
;; STRANDEDNESS: single  
;; TOPOLOGY: linear  
;; MOLECULE TYPE: peptide  
;; ORIGINAL SOURCE:  
;; ORGANISM: SHEEP PRION PROTEIN, ShPrP  
US-08-868-162A-24

Query Match 96.7%; Score 234; DB 2; Length 255;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DOYSSONNFVHDCVNITVKQHTTTTTKGFNTETDIKIMRVVEQ 46  
|||:|||||  
Db 169 DOYSSONNFVHDCVNITVKQHTTTTTKGFNTETDIKIMRVVEQ 214

## RESULT 8

US-09-031-168-10  
; Sequence 10, Application US/09031168  
; Patent No. 6150583  
; GENERAL INFORMATION:  
; APPLICANT: Stanley B. Prusiner  
; APPLICANT: Glenn C. Telling  
; APPLICANT: Fred E. Cohen  
; APPLICANT: Michael R. Scott  
; TITLE OF INVENTION: TRANSGENIC ANIMALS EXPRESSING  
; TITLE OF INVENTION: EPIOTOPE-TAGGED PROTEINS  
; NUMBER OF SEQUENCES: 13  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson  
; STREET: 2200 Sand Hill Road, Suite 100  
; CITY: Menlo Park  
; STATE: California  
; COUNTRY: USA  
; ZIP: 94025  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: ASCII  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/031.168  
; FILING DATE:  
; CLASSIFICATION:  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/660,626  
; FILING DATE:  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Valeta Gregg  
; REGISTRATION NUMBER: 35,127  
; REFERENCE/DOCKET NUMBER: 07532/003001  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (415) 322-5070  
; TELEFAX: (415) 854-0875  
; INFORMATION FOR SEQ ID NO: 10:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 255 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
; ORIGINAL SOURCE:  
; ORGANISM: SHEEP PRION PROTEIN, ShPrP  
US-09-031-168-10

Query Match 96.7%; Score 234; DB 3; Length 255;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DOYSSONNFVHDCVNITVKQHTTTTTKGFNTETDIKIMRVVEQ 46  
|||:|||||  
Db 169 DOYSSONNFVHDCVNITVKQHTTTTTKGFNTETDIKIMRVVEQ 214

## RESULT 9

US-09-036-579-4  
; Sequence 4, Application US/09036579  
; Patent No. 6290954  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: Williamson, R. Anthony  
; APPLICANT: Burton, Dennis R.  
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP  
; NUMBER OF SEQUENCES: 86  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson P.C.  
; STREET: 2200 Sand Hill Road  
; CITY: Menlo Park  
; STATE: CA  
; COUNTRY: U.S.A.  
; ZIP: 94025  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette  
; COMPUTER: IBM Compatible  
; OPERATING SYSTEM: DOS  
; SOFTWARE: FastSeq Version 2.0  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/036,579  
; FILING DATE:  
; CLASSIFICATION:  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/713,939  
; FILING DATE: 13-SEP-1996  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Bozicevic, Karl  
; REGISTRATION NUMBER: 28,807  
; REFERENCE/DOCKET NUMBER: 06510/059001  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 415-854-5277  
; TELEFAX: 415-854-0875  
; TELEX:  
; INFORMATION FOR SEQ ID NO: 4:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 255 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
US-09-036-579-4

Query Match 96.7%; Score 234; DB 3; Length 255;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DOYSSONNFVHDCVNITVKQHTTTTTKGFNTETDIKIMRVVEQ 46  
|||:|||||  
Db 169 DOYSSONNFVHDCVNITVKQHTTTTTKGFNTETDIKIMRVVEQ 214

## RESULT 10

US-09-550-374-4  
; Sequence 4, Application US/09550374  
; Patent No. 6372214  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: Williamson, R. Anthony  
; APPLICANT: Burton, Dennis R.  
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP  
; NUMBER OF SEQUENCES: 86  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson P.C.  
; STREET: 2200 Sand Hill Road  
;

CITY: Menlo Park  
STATE: CA  
COUNTRY: U.S.A.  
ZIP: 94025  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FastSEQ Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/550,374  
FILING DATE:  
CLASSIFICATION:  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 09/036,579  
FILING DATE:  
ATTORNEY/AGENT INFORMATION:  
NAME: Bozicevic, Karl  
REGISTRATION NUMBER: 28,807  
REFERENCE/DOCKET NUMBER: 06510/059001  
TELEPHONE: 415-854-5277  
TELEFAX: 415-854-0875  
TELEX:  
INFORMATION FOR SEQ ID NO: 4:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 255 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
US-09-550-374-4

Query Match 96.7%; Score 234; DB 3; Length 255;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DOYSSQNNFVHDCVNIIVKQHTTTTGGKGFETDTIKIMERVVEQ 46  
|||||  
Db 169 DOYSSQNNFVHDCVNIIVKQHTTTTGGKGFETDTIKIMERVVEQ 214

RESULT 11  
US-09-943-906-4  
Sequence 4, Application US/09943906  
Patent No. 6562341  
GENERAL INFORMATION:  
APPLICANT: Prusiner, Stanley B.  
Burton, Dennis R.  
TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP  
NUMBER OF SEQUENCES: 86  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Fish & Richardson P.C.  
STREET: 2200 Sand Hill Road  
CITY: Menlo Park  
STATE: CA  
COUNTRY: U.S.A.  
ZIP: 94025  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: DOS  
SOFTWARE: FastSEQ Version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/943,906  
FILING DATE: 30-Aug-2001  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 09/550,374  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Bozicevic, Karl

REGISTRATION NUMBER: 28,807  
REFERENCE/DOCKET NUMBER: 06510/059001  
TELEPHONE: 415-854-5277  
TELEFAX: 415-854-0875  
TELEX: <Unknown>  
INFORMATION FOR SEQ ID NO: 4:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 255 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
SEQUENCE DESCRIPTION: SEQ ID NO: 4:  
US-09-943-906-4

Query Match 96.7%; Score 234; DB 4; Length 255;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DOYSSQNNFVHDCVNIIVKQHTTTTGGKGFETDTIKIMERVVEQ 46  
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Db 169 DOYSSQNNFVHDCVNIIVKQHTTTTGGKGFETDTIKIMERVVEQ 214

RESULT 12  
US-09-669-516C-10  
Sequence 10, Application US/09669516C  
Patent No. 6602672  
GENERAL INFORMATION:  
APPLICANT: Prusiner, Stanley B.  
APPLICANT: Telling, Glenn C.  
APPLICANT: Cohen, Fred E.  
APPLICANT: Scott, Michael R.  
TITLE OF INVENTION: RECOMBINANT CONSTRUCT ENCODING EPITOPE  
FILE REFERENCE: UCAL-045CON  
CURRENT APPLICATION NUMBER: US/09/669,516C  
CURRENT FILING DATE: 2000-09-25  
PRIOR APPLICATION NUMBER: 09/031,168  
PRIOR FILING DATE: 1998-02-26  
PRIOR APPLICATION NUMBER: 08/660,626  
PRIOR FILING DATE: 1996-06-06  
PRIOR APPLICATION NUMBER: 08/521,992  
PRIOR FILING DATE: 1995-08-31  
PRIOR APPLICATION NUMBER: 08/509,261  
PRIOR FILING DATE: 1995-07-31  
PRIOR APPLICATION NUMBER: 08/242,188  
PRIOR FILING DATE: 1994-05-13  
NUMBER OF SEQ ID NOS: 15  
SOFTWARE: FastSEQ for Windows Version 4.0  
SEQ ID NO 10  
LENGTH: 255  
TYPE: PrP  
ORGANISM: bovine sp.  
US-09-669-516C-10

Query Match 96.7%; Score 234; DB 4; Length 255;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DOYSSQNNFVHDCVNIIVKQHTTTTGGKGFETDTIKIMERVVEQ 46  
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Db 169 DOYSSQNNFVHDCVNIIVKQHTTTTGGKGFETDTIKIMERVVEQ 214

RESULT 13  
US-09-431-887-25  
Sequence 25, Application US/09431887  
Patent No. 6534036  
GENERAL INFORMATION:  
APPLICANT: D-Gen Limited  
TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE

; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF PRION DISEASE  
; FILE REFERENCE: ICOT/P21952  
; CURRENT APPLICATION NUMBER: US/09/431.887  
; CURRENT FILING DATE: 1999-11-02  
; PRIOR APPLICATION NUMBER: GB 9824091.4  
; PRIOR FILING DATE: 1999-11-04  
; NUMBER OF SEQ ID NOS: 37  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 25  
; LENGTH: 256  
; TYPE: PRT  
; ORGANISM: Ovis sp.  
US-09-431-887-25

Query Match 96.7%; Score 234; DB 4; Length 256;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETETDIKIMERVVEQ 46  
|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||  
DB 170 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETETDIKIMERVVEQ 215

RESULT 14  
US-09-431-887-28  
; Sequence 28, Application US/09431887  
; Patent No. 6534036  
; GENERAL INFORMATION:  
; APPLICANT: D-Gen Limited  
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE  
; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF PRION DISEASE  
; FILE REFERENCE: ICOT/P21952  
; CURRENT APPLICATION NUMBER: US/09/431.887  
; CURRENT FILING DATE: 1999-11-02  
; PRIOR APPLICATION NUMBER: GB 9824091.4  
; PRIOR FILING DATE: 1999-11-04  
; NUMBER OF SEQ ID NOS: 37  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 28  
; LENGTH: 256  
; TYPE: PRT  
; ORGANISM: Capra hircus  
US-09-431-887-28

Query Match 96.7%; Score 234; DB 4; Length 256;  
Best Local Similarity 95.7%; Pred. No. 1.6e-24;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETETDIKIMERVVEQ 46  
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DB 170 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETETDIKIMERVVEQ 215

RESULT 15  
US-09-431-887-2  
; Sequence 2, Application US/09431887  
; Patent No. 6534036  
; GENERAL INFORMATION:  
; APPLICANT: D-Gen Limited  
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE  
; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF PRION DISEASE  
; FILE REFERENCE: ICOT/P21952  
; CURRENT APPLICATION NUMBER: US/09/431.887  
; CURRENT FILING DATE: 1999-11-02  
; PRIOR APPLICATION NUMBER: GB 9824091.4  
; PRIOR FILING DATE: 1999-11-04  
; NUMBER OF SEQ ID NOS: 37  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 2  
; LENGTH: 253  
; TYPE: PRT  
; ORGANISM: Pan troglodytes  
US-09-431-887-2

Query Match 95.9%; Score 232; DB 4; Length 253;  
Best Local Similarity 91.3%; Pred. No. 3e-24;  
Matches 42; Conservative 3; Mismatches 1; Indels 0; Gaps 0;  
QY 1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETETDIKIMERVVEQ 46  
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DB 167 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGFETETDIKIMERVVEQ 212

Search completed: July 26, 2005, 12:02:25  
Job time : 24.5 secs



Result No.	Score			Query			ID		Description
	Match	Length	DB	Match	Length	DB			
1	242	100.0	259	14	US-10-304-630-33	Sequence 33, Appl			
2	234	96.7	255	9	US-09-943-906-4	Sequence 4, Appli			
3	234	96.7	255	15	US-10-435-602-4	Sequence 4, Appli			
4	234	96.7	255	17	US-10-475-558-4	Sequence 4, Appli			
5	234	96.7	256	13	US-10-109-551-4	Sequence 4, Appli			
6	234	96.7	256	14	US-10-304-630-25	Sequence 25, Appl			
7	234	96.7	256	14	US-10-304-630-28	Sequence 28, Appl			
8	234	96.7	256	15	US-10-410-907A-12	Sequence 12, Appl			
9	234	96.7	256	15	US-10-346-190-81	Sequence 81, Appl			
10	234	96.7	256	15	US-10-346-190-88	Sequence 88, Appl			
11	234	96.7	256	16	US-10-479-218-1	Sequence 1, Appli			

; Sequence 4, Application US/09943906  
; Patent No. US2002015057A1  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; William, Dennis R.  
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP  
; NUMBER OF SEQUENCES: 86  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Fish & Richardson P.C.  
; STREET: 2200 Sand Hill Road  
; CITY: Menlo Park  
; STATE: CA  
; COUNTRY: U.S.A.  
; ZIP: 94025  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette  
; COMPUTER: IBM Compatible  
; OPERATING SYSTEM: DOS  
; SOFTWARE: FastSeq Version 2.0  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/943,906  
; FILING DATE: 30-Aug-2001  
; CLASSIFICATION: <Unknown>  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 09/550,374  
; FILING DATE: <Unknown>  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Bozicevic, Karl  
; REGISTRATION NUMBER: 28,807  
; REFERENCE/DOCKET NUMBER: 06510/059001  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 415-854-5277  
; TELEFAX: 415-854-0875  
; TELEX: <Unknown>  
; INFORMATION FOR SEQ ID NO: 4:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 255 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: peptide  
; SEQUENCE DESCRIPTION: SEQ ID NO: 4:  
US-09-943-906--4

Query Match 96.7%; Score 234; DB 9; Length 255;  
Best Local Similarity 95.7%; Pred. No. 9.8e-22;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
Qy 1 DQYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDIDKIMERVVEQ 46  
Db 169 DQYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDIDKIMERVVEQ 214

## RESULT 3

US-10-435-602-4  
; Sequence 4, Application US/10435602  
; Publication No. US20030228303A1  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: William, Dennis R.  
; TITLE OF INVENTION: Antibodies Specific for Native PrPSc  
; FILE REFERENCE: UCAL059CON3  
; CURRENT APPLICATION NUMBER: US/10/435,602  
; CURRENT FILING DATE: 2003-05-09  
; PRIOR APPLICATION NUMBER: 09/943,906  
; PRIOR FILING DATE: 2001-08-30  
; PRIOR APPLICATION NUMBER: 09/550,374  
; PRIOR FILING DATE: 2000-04-13  
; PRIOR APPLICATION NUMBER: 09/036,579  
; PRIOR FILING DATE: 1998-03-06  
; PRIOR APPLICATION NUMBER: 08/713,939

; PRIOR FILING DATE: 1996-09-13  
; PRIOR APPLICATION NUMBER: 08/528,104  
; PRIOR FILING DATE: 1995-09-14  
; NUMBER OF SEQ ID NOS: 86  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 4  
; LENGTH: 255  
; TYPE: PrP  
; ORGANISM: ovine  
; US-10-435-602-4

Query Match 96.7%; Score 234; DB 15; Length 255;  
Best Local Similarity 95.7%; Pred. No. 9.8e-22;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DQYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDIDKIMERVVEQ 46  
Db 169 DQYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDIDKIMERVVEQ 214

## RESULT 4

US-10-475-558-4  
; Sequence 4, Application US/10475558  
; Publication No. US20050106149A1  
; GENERAL INFORMATION:  
; APPLICANT: Prusiner, Stanley B.  
; APPLICANT: Peretz, David  
; APPLICANT: Williamson, R. Anthony  
; APPLICANT: Burton, Dennis R.  
; TITLE OF INVENTION: ANTIBODIES ABOLISH PRION PROPAGATION AND  
; FILE REFERENCE: UCAL-244  
; CURRENT APPLICATION NUMBER: US/10/475,558  
; CURRENT FILING DATE: 2004-05-10  
; PRIOR APPLICATION NUMBER: 60/287,971  
; PRIOR FILING DATE: 2001-05-01  
; PRIOR APPLICATION NUMBER: US02/13346  
; PRIOR FILING DATE: 2002-04-25  
; NUMBER OF SEQ ID NOS: 4  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 4  
; LENGTH: 255  
; TYPE: PrP  
; ORGANISM: sheep  
; US-10-475-558--4

Query Match 96.7%; Score 234; DB 17; Length 255;  
Best Local Similarity 95.7%; Pred. No. 9.8e-22;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DQYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDIDKIMERVVEQ 46  
Db 169 DQYSSQNNFVHDCVNITVKQHTTTTGTGKGFETDIDKIMERVVEQ 214

## RESULT 5

US-10-109-551-4  
; Sequence 4, Application US/10109551  
; Publication No. US20020194635A1  
; GENERAL INFORMATION:  
; APPLICANT: DUNNE, PATRICK W.  
; APPLICANT: PIEDRAHITA, JORGE  
; TITLE OF INVENTION: TRANSGENIC ANIMALS RESISTANT TO TRANSMISSIBLE  
; FILE REFERENCE: TAMK:207US  
; CURRENT APPLICATION NUMBER: US/10/109,551  
; CURRENT FILING DATE: 2002-03-28  
; PRIOR APPLICATION NUMBER: 60/280,549  
; PRIOR FILING DATE: 2001-03-30  
; NUMBER OF SEQ ID NOS: 10  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 4  
; LENGTH: 256

Matches:	41;	Conservative	17	Mismatch	0;	Gaps	0;
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Qy							Query Match Best Local Similarity
							96.7%; 95.7%;
							Score 234; Pred. No. 9.9e-22;
							DB 15; Length 256



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; CURRENT APPLICATION NUMBER: US/10/479,218
; CURRENT FILING DATE: 2003-12-01
; PRIOR APPLICATION NUMBER: GB 0113156.4
; PRIOR FILING DATE: 2001-05-31
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent in version 3.1
; SEQ ID NO 6
; LENGTH: 256
; TYPE: PRT
; ORGANISM: Ovis aries
US-10-479-218-6

Query Match          96.7%; Score 234; DB 16; Length 256;
Best Local Similarity 95.7%; Pred. No. 9.9e-22;
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

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Db      170 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGNFTETDIKIMERVVEQ 215

RESULT 15
US-10-479-218-7
; Sequence 7, Application US/10479218
; Publication No. US20040171082A1
; GENERAL INFORMATION:
; APPLICANT: The Secretary of State for Environment, Food & Rural Affairs (DEFRA)
; APPLICANT: Jeffrey, Martin
; TITLE OF INVENTION: Diagnostic method
; FILE REFERENCE: CG/P/135/WOD
; CURRENT APPLICATION NUMBER: US/10/479,218
; CURRENT FILING DATE: 2003-12-01
; PRIOR APPLICATION NUMBER: GB 0113156.4
; PRIOR FILING DATE: 2001-05-31
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: Patent in version 3.1
; SEQ ID NO 7
; LENGTH: 256
; TYPE: PRT
; ORGANISM: Ovis aries
US-10-479-218-7

Query Match          96.7%; Score 234; DB 16; Length 256;
Best Local Similarity 95.7%; Pred. No. 9.9e-22;
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy      1 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGNFTETDIKIMERVVEQ 46
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Db      170 DOYSSQNNFVHDCVNITVKQHTTTTGTGKGNFTETDIKIMERVVEQ 215
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Job time : 80.75 secs

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GenCore version 5.1.6  
Copyright (c) 1993 - 2005 Compugen Ltd.

OM protein - protein search, using sw model

Run on: July 26, 2005, 11:43:08 ; Search time 16.75 Seconds  
(without alignments)

Title: US-10-031-975-33\_COPY\_176\_221  
 Perfect score: 242  
 Sequence: 1 DQSSQNNFVHDCVNIIVKQ.....TKGNETTDTIKIMRVVQ 46  
 Scoring table: BLOSUM62  
 Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues  
Total number of hits satisfying chosen parameters: 283416

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Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                  Maximum Match 10%
                  Listing first 45

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2:  pir2:*
3:  pir3:*
4:  pir4:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query		DB	ID	Description
		Match	Length			
1	234	96.7	256	2	S37149	prion protein - go
2	234	96.7	256	2	A54281	major prion protei
3	232	95.9	253	2	S53635	prion protein - si
4	232	95.9	253	2	I61847	major prion protei
5	231	95.5	257	2	JQ1900	major prion protei
6	231	95.5	264	2	S37137	prion protein - gr
7	230	95.0	254	1	UJHWIH	major prion PrP-Sc
8	230	95.0	257	2	A23545	major prion PrP27-
9	229	94.6	226	2	A53892	prion-related prot
10	229	94.6	241	2	S71048	major prion protei
11	229	94.6	241	2	S71056	major prion protei
12	229	94.6	245	2	S71045	major prion protei
13	229	94.6	252	2	JC6175	prion protein - ra
14	229	94.6	253	2	I84423	major prion protei
15	229	94.6	253	2	S71055	major prion protei
16	229	94.6	253	2	I37032	major prion protei
17	229	94.6	254	2	A23544	major prion protei
18	228	94.2	252	2	I61848	major prion protei
19	228	94.2	256	2	JU0268	major prion protei
20	228	94.2	264	2	A54330	major prion protei
21	227	93.8	239	2	S53633	major prion protei
22	227	93.8	253	2	S53617	major prion protei
23	226	93.4	232	2	S71041	major prion protei
24	226	93.4	253	1	UJHU	major prion protei
25	226	93.4	254	2	B34759	prion protein - go
26	226	93.4	254	2	A34759	prion protein - Ch
27	224	92.6	245	2	S53627	major prion protei
28	224	92.6	252	2	S53631	major prion protei
29	224	92.6	253	2	S53624	major prion protei

## ALIGNMENTS

```

RESULT 1
S37149
prion protein - goat
C/Species: Capra aegagrus hircus (domestic goat)
C/Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C/Accession: S37149
R/Martin, T.C.; Hughes, S.L.; Hughes, K.J.; Dawson, M.
submitted to the EMBL Data Library, August 1993
A/Reference number: S37137
A/Accession: S37149
A/Status: preliminary
A/Molecule type: DNA
A/Residues: 1-256 <MAR>
A/Cross-references: UNIPROT:P52113; EMBL:X74758; NID:g400442; PIDN:CAA527774
C/Superfamily: major prion protein

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Query Match 96.7%; Score 234; DB 2; Length 256;  
Best Local Similarity 95.7%; Pred. No. 3.5e-21;  
Matches 44: Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DQYSSQNNFVHDCVNI TVKQHTTTTTTKGENFTETDIKIMERVVEQ 46  
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Dp 170 DQYSSQNNFVHDCVNI TVKQHTTTTTTKGENFTETDIKIMERVVEQ 215

RESULT 2  
A54281

A: major prion protein - sheep  
C: Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)  
C: Date: 06-Jan-1995 #sequence\_revision 06-Jan-1995 #text\_change 09-Jul-2004  
C: Accession: A54281; A35983  
R: Westaway, D.; Zuliani, V.; Cooper, C.M.; Da Costa, M.; Neuman, S.; Jenny, Genes Dev. 8, 959-969, 1994  
A: title: Homozygosity for prion protein alleles encoding glutamine-171 render sheep susceptible to scrapie  
A: Reference number: A54281; MUID:95011594; PMID:7926780  
A: Accession: A54281  
A: Molecule type: DNA  
A: Residues: 1-256 <WES>  
A: Cross-references: UNIPROT: A06648; GB:X79912; NID:G510442; PIDN:CAA56283.1  
R: Goldman, W.; Hunter, N.; Foster, J.D.; Salbaum, J.M.; Beyreuther, K.; Holt, Proc. Natl. Acad. Sci. U.S.A. 87, 2476-2480, 1990  
A: title: Two alleles of a neural protein gene linked to scrapie in sheep.  
A: Reference number: A35983; MUID:90207216; PMID:1969635  
A: Accession: A35983  
A: Molecule type: DNA  
A: Residues: 1-170, 'R', 172-256 <OOL>  
A: Cross-references: GB:M31313; PIDN:g166039; PIDN:AAB97765.1; PID:g166040  
C: Superfamily: major prion protein

Query Match 96.7%; Score 234; DB 2; Length 256;  
Best Local Similarity 95.7%; pred. No. 3.5e-21;  
Matches 44: Conservative 1; Mismatches 1; Indels

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QY      1 DQYSSQNNFVHDCVNITVKQHTTTTTTKGFNFETETDIKIMERVVEQ 46
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Db      170 DQYSSQNNFVHDCVNITVKQHTTTTTTKGFNFETETDIKIMERVVEQ 215
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RESULT 3
S53635
prion protein - siamang
C;Species: Hylobates syndactylus (siamang)
C;Date: 15-Jul-1995 #sequence_revision 19-Apr-1996 #text_change 09-Jul-2004
C;Accession: S53635
R;Schatzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53635
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-253 <SCH>
A;Cross-references: UNIPROT:P61767; EMBL:U08308; NID:g474374; PIDN:AAAC50096.1; PID:g474374
A;Note: the source was designated as Sympthalangus syndactylus
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, April 1994
C;Superfamily: major prion protein

Query Match      95.9%; Score 232; DB 2; Length 253;
Best Local Similarity 91.3%; Pred. No. 6.1e-21;
Matches 42; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

QY      1 DQYSSQNNFVHDCVNITVKQHTTTTTTKGFNFETETDIKIMERVVEQ 46
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Db      167 DQYSSQNNFVHDCVNITVKQHTTTTTTKGFNFETETDKIMERVVEQ 212
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RESULT 4
I61847
major prion protein precursor - chimpanzee
C;Species: Pan troglodytes (chimpanzee)
C;Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 09-Jul-2004
C;Accession: I61847; S71060; S53615
R;CervenaKova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.; D
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
A;Title: Infectious amyloid precursor gene sequences in primates used for experimental
A;Reference number: I36907; MUID:95083661; PMID:7991600
A;Accession: I61847
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-253 <RES>
A;Cross-references: UNIPROT:P61768; EMBL:U15039; NID:g609303; PIDN:AAA68632.1; PID:g609303
R;Schatz, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71060
A;Molecule type: DNA
A;Residues: 1-253 <SCW>
A;Cross-references: EMBL:U08296; NID:g474350; PIDN:AAAC50085.1; PID:g474351
R;Schatz, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53615
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-210, 'R', 212-253 <SCH>
A;Cross-references: EMBL:U08296
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match      95.9%; Score 232; DB 2; Length 253;
Best Local Similarity 91.3%; Pred. No. 6.1e-21;
Matches 42; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

QY      1 DQYSSQNNFVHDCVNITVKQHTTTTTTKGFNFETETDIKIMERVVEQ 46
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
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Db      167 DQYSSQNNFVHDCVNITVKQHTTTTTTKGFNFETETDKIMERVVEQ 212
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||

RESULT 5
JQ1900
major prion protein precursor - European mink
C;Species: Mustela lutreola (European mink)
C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 21-Jul-2000
C;Accession: JQ1900
R;Kreuschmar, H.A.; Neumann, M.; Riethmuller, G.; Prusiner, S.B.
J. Gen. Virol. 73, 2757-2761, 1992
A;Title: Molecular cloning of a mink prion protein gene.
A;Reference number: JQ1900; MUID:93019035; PMID:1383401
A;Accession: JQ1900
A;Molecule type: DNA
A;Residues: 1-257 <KRE>
A;Cross-references: GB:S46825; NID:g258137; PIDN:AAB23801.1; PID:g258138
A;Experimental source: liver
C;Genetics:
A;Gene: PrP
C;Superfamily: major prion protein
F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-257/Product: major prion protein #status predicted <MAT>

Query Match      95.5%; Score 231; DB 2; Length 257;
Best Local Similarity 93.5%; Pred. No. 8.2e-21;
Matches 43; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY      1 DQYSSQNNFVHDCVNITVKQHTTTTTTKGFNFETETDIKIMERVVEQ 46
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db      171 DQYSSQNNFVHDCVNITVKQHTTTTTTKGFNFETETDKIMERVVEQ 216
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||

RESULT 6
S37137
prion protein - greater kudu
C;Species: Tragelaphus strepsiceros (greater kudu)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: S37137
R;Martin, T.C.; Hughes, S.L.; Hughes, K.J.; Dawson, M.
submitted to the EMBL Data Library, August 1993
A;Reference number: S37137
A;Accession: S37137
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-264 <MAR>
A;Cross-references: UNIPROT:P40242; EMBL:X74771; NID:g398937; PIDN:CAA52781.1; PID:g398937
C;Superfamily: major prion protein

Query Match      95.5%; Score 231; DB 2; Length 264;
Best Local Similarity 93.5%; Pred. No. 8.5e-21;
Matches 43; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY      1 DQYSSQNNFVHDCVNITVKQHTTTTTTKGFNFETETDIKIMERVVEQ 46
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db      178 DQYSSQNNFVHDCVNITVKQHTTTTTTKGFNFETETDKIMERVVEQ 223
      |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||

RESULT 7
UJHV1H
major prion PrP-Sc protein precursor - golden hamster
N;Contains: scrapie amyloid protein (prP27-30)
C;Species: Mesocricetus auratus (golden hamster)
C;Date: 04-Dec-1986 #sequence_revision 12-Apr-1996 #text_change 09-Jul-2004
C;Accession: I48168; A03133; I48167; S02520; A36019; A40665
R;Basler, K.; Oesch, B.; Scott, M.G.; Westaway, D.; Waelchli, M.; Groth, D.F.; McKinley,
Cell 46, 417-428, 1986
A;Title: Scrapie and cellular PrP isoforms are encoded by the same chromosomal gene.
A;Reference number: I48168; MUID:86272089; PMID:2873895
A;Accession: I48168
A;Molecule type: DNA
A;Residues: 1-254 <RES>
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A;Cross-references: UNIPROT:P04273; GB:M14054; NID:g191425; PIDN:AAA37091.1; PID:g387076  
R;Oesch, B.; Westaway, D.; Walchli, M.; McKinley, M.P.; Kent, S.B.H.; Aebersold, R.; Bad  
Cell 40, 735-746, 1985  
A;Title: A cellular gene encodes scrapie PrP 27-30 protein.  
A;Reference number: A03133; MUID:8517692; PMID:2859120  
A;Accession: A03133  
A;Molecule type: mRNA  
A;Residues: 15-254 <RES>  
A;Cross-references: GB:M02234; NID:g191429; PIDN:AAA37092.1; PID:g191430  
A;Note: this mRNA, isolated from the brain of scrapie-infected hamster, is the product of  
R;Stahl, N.; Baldwin, M.A.; Teplow, D.B.; Hood, L.; Gibson, B.W.; Burlingame, A.L.; Prus  
Biochemistry 32, 1991-2002, 1993  
A;Title: Structural studies of the scrapie prion protein using mass spectrometry and am  
A;Reference number: A0665; MUID:93192259; PMID:8448158  
A;Contents: annotation; chemical (not conformational) identity of PrPSc and PrPC molecu  
A;Note: no chemical difference between cellular (PrPC) and scrapie (PrPSc) forms of this  
R;McKinley, M.P.; Prusiner, S.B.  
Int. Rev. Neurobiol. 28, 1-57, 1986  
A;Title: Biology and structure of scrapie prions.  
A;Reference number: I48167; MUID:87108309; PMID:3100471  
A;Accession: I48167  
A;Status: preliminary; translated from GB/EMBL/DBJ  
A;Molecule type: mRNA  
A;Residues: 12-254 <RES>  
A;Cross-references: GB:M37381; NID:g191422; PIDN:AAA37090.1; PID:g191423  
R;Turk, E.; Teplow, D.B.; Hood, L.E.; Prusiner, S.B.  
Eur. J. Biochem. 176, 21-30, 1988  
A;Title: Purification and properties of the cellular and scrapie hamster prion proteins.  
A;Reference number: S02519; MUID:88323062; PMID:3138115  
A;Accession: S02520  
A;Molecule type: protein  
A;Residues: 23-24,'X',26-36,'X',38-55 <TUR>  
A;Experimental source: strain Lak-1LVG  
R;Safar, J.; Wang, W.; Padgett, M.P.; Ceroni, M.; Piccardo, P.; Zopf, D.; Gajdusek, D.C.  
Proc. Natl. Acad. Sci. U.S.A. 87, 6373-6377, 1990  
A;Title: Molecular mass, biochemical composition, and physicochemical behavior of the in  
A;Reference number: A36019; MUID:90349618; PMID:1974720  
A;Accession: A36019  
A;Molecule type: protein  
A;Residues: 'S',24-32 <SAF>  
A;Experimental source: brain, strain 263-K  
C;Comment: Scrapie amyloid protein PrP27-30 is a strongly aggregating, amyloid fibril-fo  
C;Genetics:  
A;Introns: #status absent  
A;Note: an intron is found 5' to the coding region  
C;Superfamily: major prion protein  
C;Keywords: blocked carboxyl end; brain; glycoprotein; lipoprotein; phosphatidylinositol  
F;1-22/Domain: signal sequence #status predicted <SIG>  
F;23-231/Product: major prion PrP27-30 protein #status experimental <MAT>  
F;232-254/Domain: carboxyl-terminal propeptide #status predicted <CPP>  
F;181,197/Binding site: carboxylate (Asn) (covalent) #status experimental  
F;231/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form

Query Match 95.0%; Score 230; DB 1; Length 254;  
Best Local Similarity 91.3%; Pred. No. 1.1e-20;  
Matches 42; Conservative 3; Mismatches 1; Indels 0; Gaps 0;  
Qy 1 DOYSSQNNFVHDCVNITVKOHTTTTGTGKGFETDTIKIMERVVEQ 46  
Db 167 DOYNNQNNFVHDCVNITVKOHTTTTGTGKGFETDTIKIMERVVEQ 212

RESULT 8  
A23545  
major prion PrP27-30 protein - hamster  
C;Species: Cricetinae gen. sp. (hamster)  
C;Date: 29-Aug-1987 #sequence\_revision 29-Aug-1987 #text\_change 09-Jul-2004  
C;Accession: A23545  
R;Robakis, N.K.; Sawh, P.R.; Wolfe, G.C.; Rubenstein, R.; Carp, R.I.; Innis, M.A.  
Proc. Natl. Acad. Sci. U.S.A. 83, 6377-6381, 1986  
A;Title: Isolation of a cDNA clone encoding the leader peptide of prion protein and exp  
A;Reference number: A23545; MUID:86313584; PMID:3529083  
A;Accession: A23545

A;Molecule type: protein  
A;Residues: 1-257 <ROB>  
A;Cross-references: UNIPROT:Q7M089  
C;Superfamily: major prion protein

Query Match 95.0%; Score 230; DB 2; Length 257;  
Best Local Similarity 91.3%; Pred. No. 1.1e-20;  
Matches 42; Conservative 3; Mismatches 1; Indels 0; Gaps 0;  
Qy 1 DOYSSQNNFVHDCVNITVKOHTTTTGTGKGFETDTIKIMERVVEQ 46  
Db 170 DOYNNQNNFVHDCVNITVKOHTTTTGTGKGFETDTIKIMERVVEQ 215

RESULT 9  
A53892  
Prion-related protein - rat (fragment)  
C;Species: Rattus norvegicus (Norway rat)  
C;Date: 07-Oct-1994 #sequence\_revision 07-Oct-1994 #text\_change 09-Jul-2004  
C;Accession: A53892  
R;Liao, Y.C.; Tokes, Z.; Lim, E.; Lackey, A.; Woo, C.H.; Button, J.D.; Clawson, G.A.  
Lab. Invest. 57, 370-374, 1987  
A;Title: Cloning of rat "prion-related protein" cDNA.  
A;Reference number: A53892; MUID:88037055; PMID:2889848  
A;Accession: A53892  
A;Status: preliminary  
A;Molecule type: mRNA  
A;Residues: 1-226 <LIA>  
A;Cross-references: UNIPROT:P13852; GB:M20313; NID:g206391; PIDN:AAA1947.1; PID:g206392  
C;Superfamily: major prion protein

Query Match 94.6%; Score 229; DB 2; Length 226;  
Best Local Similarity 89.1%; Pred. No. 1.3e-20;  
Matches 41; Conservative 4; Mismatches 1; Indels 0; Gaps 0;  
Qy 1 DOYSSQNNFVHDCVNITVKOHTTTTGTGKGFETDTIKIMERVVEQ 46  
Db 139 DOYSSQNNFVHDCVNITVKOHTTTTGTGKGFETDTIKIMERVVEQ 184

RESULT 10  
S71048  
major prion protein - Callicebus moloch (fragment)  
C;Species: Callicebus moloch  
C;Date: 27-Oct-1996 #sequence\_revision 07-Feb-1997 #text\_change 09-Jul-2004  
C;Accession: S71048; S53632  
R;Schatzl, H.M.  
submitted to the EMBL Data Library, April 1994  
A;Reference number: S71041  
A;Accession: S71048  
A;Molecule type: DNA  
A;Residues: 1-241 <SCH>  
A;Cross-references: UNIPROT:P40248; EMBL:U08312; NID:g475585; PIDN:AAC50100.1; PID:g475585  
R;Schatz, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.  
J. Mol. Biol. 245, 362-374, 1995  
A;Title: Prion protein gene variation among primates.  
A;Reference number: S53614; MUID:95139066; PMID:7837269  
A;Accession: S53632  
A;Status: nucleic acid sequence not shown  
A;Molecule type: DNA  
A;Residues: 1-203,'R',205-240 <SCW>  
A;Cross-references: EMBL:U08312  
C;Superfamily: major prion protein  
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 94.6%; Score 229; DB 2; Length 241;  
Best Local Similarity 89.1%; Pred. No. 1.3e-20;  
Matches 41; Conservative 4; Mismatches 1; Indels 0; Gaps 0;  
Qy 1 DOYSSQNNFVHDCVNITVKOHTTTTGTGKGFETDTIKIMERVVEQ 46  
Db 160 DOYSSQNNFVHDCVNITVKOHTTTTGTGKGFETDTIKIMERVVEQ 205



Search completed: July 26, 2005, 12:00:44  
Job time : 16.75 secs

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GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: July 26, 2005, 11:42:12 ; Search time 81 Seconds  
(without alignments)  
290.810 Million cell updates/sec

Title: US-10-031-975-33\_COPY\_176\_221

Perfect score: 242

Sequence: 1 DQYSSQNNFVHDCVNITVKQ.....TKGENFTETDIKIMERVVEQ 46

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt\_03.\*

1: uniprot\_sprot.\*

2: uniprot\_trembl.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	242	100.0	259	1	PRI0_TRIVU
2	235	97.1	215	2	Q866U7
3	234	96.7	195	2	Q97903
4	234	96.7	197	2	Q811W6
5	234	96.7	202	2	Q97908
6	234	96.7	223	2	Q97910
7	234	96.7	246	2	Q866W9
8	234	96.7	247	2	Q811W7
9	234	96.7	256	1	PRI0_BUDTA
10	234	96.7	256	1	PRI0_CAPHI
11	234	96.7	256	1	PRI0_OVICA
12	234	96.7	256	1	PRI0_OVIMO
13	234	96.7	256	1	PRI0_OVIMU
14	234	96.7	256	2	O46648
15	234	96.7	256	2	Q8SPV4
16	234	96.7	256	2	Q8SPV5
17	234	96.7	256	2	Q8SPV6
18	234	96.7	256	2	Q8SPV7
19	234	96.7	256	2	Q68G92
20	234	96.7	256	2	Q68G94
21	234	96.7	256	2	Q68G95
22	234	96.7	256	2	Q68G95
23	234	96.7	256	2	Q6V654
24	234	96.7	256	2	Q70K29
25	234	96.7	256	2	Q712V9
26	234	96.7	256	2	Q712W0
27	234	96.7	256	2	Q712W1
28	234	96.7	256	2	Q712W3
29	234	96.7	256	2	Q712W4
30	234	96.7	256	2	Q9TU07
31	233	96.3	226	2	Q866W5

Q866W8 tupaia tana  
P40245 aotus trivi  
P61766 hylobates l  
P61767 hylobates s  
Q7YRX1 procyon lot  
P61768 pan troglod  
O97907 gazella sub  
O97909 tragelaphus  
Q866V0 orycteropus  
P40243 tragelaphus  
P40244 mustela vis  
Q866W6 talpa europ  
P40242 tragelaphus  
Q6JUY7 ovis aries

## ALIGNMENTS

## RESULT 1

PRI0\_TRIVU STANDARD; PRT; 259 AA.  
AC PS1780;  
DT 01-OCT-1996 (Rel. 34, Last sequence update)  
DT 01-OCT-1996 (Rel. 34, Last sequence update)  
DT 05-JUL-2004 (Rel. 44, Last annotation update)  
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).  
GN Name=PRNP;  
OS Trichosurus vulpecula (Brush-tailed possum).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Metatheria; Diprotodontia; Phalangeridae; Trichosurus.  
OX NCBI\_TaxID=9337;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Windl O., Dempster M., Estibeiro P., Lathe R.;  
RL Submitted (MAY-1995) to the EMBL/GenBank/DBJ databases.  
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the  
CC host genome and is expressed both in normal and infected cells.  
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called  
CC "rods".  
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.  
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and  
CC animals infected with the degenerative neurological diseases kuru,  
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome  
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),  
CC transmissible mink encephalopathy (TME), etc.  
CC -!- SIMILARITY: Belongs to the prion family.  
-----  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
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CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
-----  
CC EMBL; L38993; AAA61833.1; -;  
CC HSP; P10279; IDWY.  
CC InterPro; IPR000817; Prion.  
CC Pfam; PF00377; Prion; 1.  
CC PRINTS; PR00341; PRION.  
CC PROSITE; PS00291; PRION\_1; 1.  
CC PROSITE; PS00706; PRION\_2; 1.  
CC Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;  
CC Signal.  
CC CHAIN 1 24 By similarity.  
CC PROPPE 25 236 Major prion protein.  
CC DISULFID 237 259 Removed in mature form (Potential).  
CC LIPID 184 219 By similarity.  
CC FT CARBOHYD 186 186 N-linked (GlcNAc...) (Potential).  
CC FT CARBOHYD 202 202 N-linked (GlcNAc...) (Potential).

SQ SEQUENCE 259 AA; 29550 MW; 27DA7D8EBCA5C892 CRC64;  
 Query Match 100.0%; Score 242; DB 1; Length 259;  
 Best Local Similarity 100.0%; Pred. No. 3e-22;  
 Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DQYSSQNNFVHDCVNIIVKQHTTTTTTKGENFTETDIKIMERVVEQ 46  
 |||:|||||  
 DB 172 DQYSSQNNFVHDCVNIIVKQHTTTTTTKGENFTETDIKIMERVVEQ 217  
 |||:|||||

RESULT 2  
 Q866U7 PRELIMINARY; PRT; 215 AA.  
 ID Q866U7  
 AC Q866U7;  
 DT 01-JUN-2003 (TrEMBLrel. 24, Created)  
 DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)  
 DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)  
 DE Prion protein (Fragment).  
 DE Name=PRNP;  
 GN Amblysomus hottentotus (Hottentot golden mole).  
 OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Insectivora; Chrysochloridae; Amblysomus.  
 NCBI\_TaxID=9391;  
 OX [1]  
 RN SEQUENCE FROM N.A.  
 RP MEDLINE=2240813; PubMed=12519913; DOI=10.1093/molbev/msg014;  
 RX van Rheede T., Smolenaars M.M., Madseen O., De Jong W.W.;  
 RT "Molecular evolution of the mammalian prion protein.";  
 RL Mol. Biol. Evol. 20:111-121(2003).  
 CC -1- SIMILARITY: Belongs to the prion family.  
 DR EMBL; AY133061; AAN16515.1; -.  
 DR HSP; P23907; 1604.  
 DR GO; GO:0006355; P:regulation of transcription, DNA-dependent; IEA.  
 DR GO; GO:0007165; P:signal transduction; IEA.  
 DR InterPro; IPR001610; PAC.  
 DR InterPro; IPR00817; Prion.  
 DR Pfam; PF03991; Prion octapep; 4.  
 DR PRINTS; PR00341; PRION.  
 DR SMART; SM00086; PAC; 1.  
 DR SMART; SM00157; PRP; 1.  
 DR PROSITE; PS00291; PRION\_1; 1.  
 DR PROSITE; PS00706; PRION\_2; 1.  
 DR Prion.  
 FT NON\_TER 1 1  
 FT NON\_TER 215 215  
 SQ SEQUENCE 215 AA; 23279 MW; 4ACAB48C52B45F36 CRC64;  
 Query Match 97.1%; Score 235; DB 2; Length 215;  
 Best Local Similarity 93.5%; Pred. No. 1.9e-21;  
 Matches 43; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

QY 1 DQYSSQNNFVHDCVNIIVKQHTTTTTTKGENFTETDIKIMERVVEQ 46  
 |||:|||||  
 DB 138 DQYNNQNNFVHDCVNIIVKQHTTTTTTKGENFTETDIKIMERVVEQ 183  
 |||:|||||

RESULT 3  
 O97903 PRELIMINARY; PRT; 195 AA.  
 ID O97903  
 AC O97903;  
 DT 01-MAY-1999 (TrEMBLrel. 10, Created)  
 DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)  
 DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)  
 DE Prion protein (Fragment).  
 DE Name=Prp;  
 GN Addax nasomaculatus.  
 OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
 OC Hippotraginae; Addax.  
 NCBI\_TaxID=59515;  
 OX [1]  
 RN SEQUENCE FROM N.A.  
 RP

DR PRINTS; PR00341; PRION.  
DR SMART; SM00157; PRP; 1.  
DR PROSITE; PS00291; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
FT NON TER 1 223  
SQ SEQUENCE 223 AA; 24172 MW; 77A95AC13080F416 CRC64;  
Query Match 96.7%; Score 234; DB 2; Length 223;  
Best Local Similarity 95.7%; Pred. No. 2.3e-21;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
[1]  
QY 1 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 46  
DB 143 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 188  
RESULT 7  
Q866W9 PRELIMINARY; PRT; 246 AA.  
ID Q866W9  
AC Q866W9  
DT 01-JUN-2003 (TrEMBLrel. 24, Created)  
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)  
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)  
DE Prion protein (Fragment).  
GN Name=PRP;  
OS Cynocephalus variegatus (Flying lemur).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Dermoptera; Cynocephalidae; Cynocephalus.  
OX NCBI\_TaxID=9457;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=22408137; PubMed=12519913; DOI=10.1093/molbev/msg014;  
RA van Rhee T., Smolenaars M.M., Madsen O., De Jong W.W.;  
RT "Molecular evolution of the mammalian prion protein.";  
RL Mol. Biol. Evol. 20:111-121(2003).  
CC -!- SIMILARITY: Belongs to the prion family.  
DR EMBL; AV133034; AAN16488.1; -.  
DR HSP; P23907; IG04.  
DR InterPro; IPR000817; Prion.  
DR Pfam; PF03991; Prion octapep; 6.  
DR PRINTS; PR00341; PRION.  
DR SMART; SM00157; PRP; 1.  
DR PROSITE; PS00291; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
FT NON TER 246 246  
SQ SEQUENCE 246 AA; 26737 MW; 3C7F124055289ESD CRC64;  
Query Match 96.7%; Score 234; DB 2; Length 246;  
Best Local Similarity 95.7%; Pred. No. 2.9e-21;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
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QY 1 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 46  
DB 168 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 213  
RESULT 8  
Q811W7 PRELIMINARY; PRT; 247 AA.  
ID Q811W7  
AC Q811W7  
DT 01-JUN-2003 (TrEMBLrel. 24, Created)  
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)  
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)  
DE Prion protein (Fragment).  
GN Name=PRP;  
OS Sciurus vulgaris (Red squirrel).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Scuridae; Scurinae;  
OC Sciurus.  
OX NCBI\_TaxID=55149;

DR PRINTS; PR00341; PRION.  
DR SMART; SM00157; PRP; 1.  
DR PROSITE; PS00291; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
FT NON TER 1 223  
SQ SEQUENCE 223 AA; 24172 MW; 77A95AC13080F416 CRC64;  
Query Match 96.7%; Score 234; DB 2; Length 223;  
Best Local Similarity 95.7%; Pred. No. 2.3e-21;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
[1]  
QY 1 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 46  
DB 143 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 188  
RESULT 7  
Q866W9 PRELIMINARY; PRT; 246 AA.  
ID Q866W9  
AC Q866W9  
DT 01-JUN-2003 (TrEMBLrel. 24, Created)  
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)  
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)  
DE Prion protein (Fragment).  
GN Name=PRP;  
OS Cynocephalus variegatus (Flying lemur).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Dermoptera; Cynocephalidae; Cynocephalus.  
OX NCBI\_TaxID=9457;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=22408137; PubMed=12519913; DOI=10.1093/molbev/msg014;  
RA van Rhee T., Smolenaars M.M., Madsen O., De Jong W.W.;  
RT "Molecular evolution of the mammalian prion protein.";  
RL Mol. Biol. Evol. 20:111-121(2003).  
CC -!- SIMILARITY: Belongs to the prion family.  
DR EMBL; AV133034; AAN16488.1; -.  
DR HSP; P23907; IG04.  
DR InterPro; IPR000817; Prion.  
DR Pfam; PF03991; Prion octapep; 6.  
DR PRINTS; PR00341; PRION.  
DR SMART; SM00157; PRP; 1.  
DR PROSITE; PS00291; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
FT NON TER 246 246  
SQ SEQUENCE 246 AA; 26737 MW; 3C7F124055289ESD CRC64;  
Query Match 96.7%; Score 234; DB 2; Length 246;  
Best Local Similarity 95.7%; Pred. No. 2.9e-21;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
[1]  
QY 1 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 46  
DB 168 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 213  
RESULT 8  
Q811W7 PRELIMINARY; PRT; 247 AA.  
ID Q811W7  
AC Q811W7  
DT 01-JUN-2003 (TrEMBLrel. 24, Created)  
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)  
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)  
DE Prion protein (Fragment).  
GN Name=PRP;  
OS Sciurus vulgaris (Red squirrel).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Scuridae; Scurinae;  
OC Sciurus.  
OX NCBI\_TaxID=55149;

DR PRINTS; PR00341; PRION.  
DR SMART; SM00157; PRP; 1.  
DR PROSITE; PS00291; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
FT NON TER 1 223  
SQ SEQUENCE 223 AA; 24172 MW; 77A95AC13080F416 CRC64;  
Query Match 96.7%; Score 234; DB 2; Length 223;  
Best Local Similarity 95.7%; Pred. No. 2.3e-21;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
[1]  
QY 1 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 46  
DB 143 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 188  
RESULT 7  
Q866W9 PRELIMINARY; PRT; 246 AA.  
ID Q866W9  
AC Q866W9  
DT 01-JUN-2003 (TrEMBLrel. 24, Created)  
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)  
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)  
DE Prion protein (Fragment).  
GN Name=PRP;  
OS Cynocephalus variegatus (Flying lemur).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Dermoptera; Cynocephalidae; Cynocephalus.  
OX NCBI\_TaxID=9457;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=22408137; PubMed=12519913; DOI=10.1093/molbev/msg014;  
RA van Rhee T., Smolenaars M.M., Madsen O., De Jong W.W.;  
RT "Molecular evolution of the mammalian prion protein.";  
RL Mol. Biol. Evol. 20:111-121(2003).  
CC -!- SIMILARITY: Belongs to the prion family.  
DR EMBL; AV133034; AAN16488.1; -.  
DR HSP; P23907; IG04.  
DR InterPro; IPR000817; Prion.  
DR Pfam; PF03991; Prion octapep; 6.  
DR PRINTS; PR00341; PRION.  
DR SMART; SM00157; PRP; 1.  
DR PROSITE; PS00291; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
FT NON TER 246 246  
SQ SEQUENCE 246 AA; 26737 MW; 3C7F124055289ESD CRC64;  
Query Match 96.7%; Score 234; DB 2; Length 246;  
Best Local Similarity 95.7%; Pred. No. 2.9e-21;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
[1]  
QY 1 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 46  
DB 168 DOYSSQNNFVHDCVNITVKQHTTTTTTKGNTFTETDIKIMERVVEQ 213  
RESULT 8  
Q811W7 PRELIMINARY; PRT; 247 AA.  
ID Q811W7  
AC Q811W7  
DT 01-JUN-2003 (TrEMBLrel. 24, Created)  
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)  
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)  
DE Prion protein (Fragment).  
GN Name=PRP;  
OS Sciurus vulgaris (Red squirrel).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Scuridae; Scurinae;  
OC Sciurus.  
OX NCBI\_TaxID=55149;

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RN  SEQUENCE FROM N.A.
RP  MEDLINE=24408137; PubMed=12519913; DOI=10.1093/molbev/meg014;
RA  van Rheede T., Smolenaars M.M., Madsen O., De Jong W.W.;
RT  "Molecular evolution of the mammalian prion protein.";
RL  Mol. Biol. Evol. 20:111-121(2003).
CC  -|- SIMILARITY: Belongs to the prion family.
DR  EMBL; AV133037; AAN16491.1; -.
DR  HSSP; P23907; 1S4T.
DR  InterPro; IPR000817; Prion.
DR  Pfam; PF03991; Prion_octapep; 5.
DR  PRINTS; PR00341; PRION.
DR  SMART; SM00157; PRP; 1.
DR  PROSITE; PS00291; PRION_1; 1.
DR  PROSITE; PS00706; PRION_2; 1.
KW  Prion.
SQ  SEQUENCE 247 AA; 26733 MW; BCCFCB85B5CA1F61 CRC64;

Query Match 96.7%; Score 234; DB 2; Length 247;
Best Local Similarity 95.7%; Pred. NO. 2.9e-21;
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DQSSQNFFVHDCVNIIVKQHTTTTGGNFETETDIKIMRVVEQ 46
DB 169 DQSSQNFFVHDCVNIIVKQHTTTTGGNFETETDIKIMRVVEQ 214

RESULT 9
PRIO_BUDTA STANDARD; PRT; 256 AA.
AC Q55M08;
DT 23-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Major prion protein precursor (PrP).
GN Name=PRNP;
OS Budorcas taxicolor (Golden takin).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Budorcas.
OX NCBI_TaxID=37181;
RN [1]
RP SEQUENCE FROM N.A.
RX PubMed=11805443; DOI=10.1159/000050072;
RA Seo S.W., Hara K., Kubosaki A., Nasu Y., Nishimura T., Saeki K.,
RA Matsumoto Y., Endo H., Onodera T.;
RT "Comparative analysis of the prion protein open reading frame
RT Nucleotide sequences of two wild ruminants, the mouflon and golden
RT takin.";
RL Intervirology 44:359-363(2001).
CC -|- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells (By
CC similarity).
CC -|- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "rods" (By similarity).
CC -|- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By
CC similarity).
CC -|- SIMILARITY: Belongs to the prion family.
CC -----
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CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
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CC entities requires a license agreement (see http://www.ebi.ac.uk/ebis/announcements/
CC or send an email to license@ebi.ac.uk).
CC -----
DR  EMBL; AB060290; BAB69957.1; -.
DR  HSSP; P10279; 1DWM.
DR  InterPro; IPR000817; Prion.
DR  Pfam; PF03991; Prion; 1.
DR  Pfam; PF03991; Prion_octapep; 5.

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DR  PRINTS; PR00341; PRION.
DR  SMART; SM00157; PRP; 1.
DR  PROSITE; PS00291; PRION_1; 1.
DR  PROSITE; PS00706; PRION_2; 1.
KW  Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
KW Signal.
FT SIGNAL 1 24 By similarity.
FT CHAIN 25 233 Major prion protein.
FT PROPEP 234 256 Removed in mature form (Potential).
FT LIPID 233 233 GPI-anchor amidated alanine (Potential).
FT CARBOHYD 184 184 N-linked (GlcNAc...) (Probable).
FT CARBOHYD 200 200 N-linked (GlcNAc...) (Probable).
FT DISULFID 182 217 By similarity.
FT DOMAIN 54 95 5 X 8 AA tandem repeats of P-H-G-G-G-W-G-
FT REPEAT 54 62 Q.
FT REPEAT 63 70 1.
FT REPEAT 71 78 2.
FT REPEAT 79 86 3.
FT REPEAT 87 95 4.
FT REPEAT 95 95 5.
SQ SEQUENCE 256 AA; 27860 MW; 527E3232CD908BCD7 CRC64;

Query Match 96.7%; Score 234; DB 1; Length 256;
Best Local Similarity 95.7%; Pred. NO. 3e-21;
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DQSSQNFFVHDCVNIIVKQHTTTTGGNFETETDIKIMRVVEQ 46
DB 170 DQSSQNFFVHDCVNIIVKQHTTTTGGNFETETDIKIMRVVEQ 215

RESULT 10
PRIO_CAPHI STANDARD; PRT; 256 AA.
AC P52113;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP).
GN Name=PRNP; Synonyms=PRP;
OS Capra hircus (Goat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Capra.
OX NCBI_TaxID=9925;
RN [1]
RP SEQUENCE FROM N.A.
RX STRAIN=Anglo-Nubian; TISSUE=Peripheral blood lymphocytes;
RA Martin T.C., Hughes S.L., Hughes K.J., Dawson M.;
RL Submitted (SEP-1993) to the EMBL/GenBank/DBJ databases.
RN [2]
RP SEQUENCE FROM N.A., AND VARIANT MET-142.
RX STRAIN=Anglo-Nubian;
RX MEDLINE=97081203; PubMed=8922485;
RA Goldmann W., Martin T., Foster J., Hughes S., Smith G., Hughes K.,
RA Dawson M., Hunter N.;
RA "Novel polymorphisms in the caprine PrP gene: a codon 142 mutation
RT associated with scrapie incubation period.";
RL J. Gen. Virol. 77:2885-2891(1996).
RN [3]
RP ERATUM.
RA Goldmann W., Martin T., Foster J., Hughes S., Smith G., Hughes K.,
RA Dawson M., Hunter N.;
RL J. Gen. Virol. 78:697-697(1997).
RN [4]
RP SEQUENCE FROM N.A.
RX STRAIN=African dwarf; TISSUE=Blood;
RX MEDLINE=96356540; PubMed=8746958;
RA Obermaier G., Kretzschmar H.A., Hafner A., Heubeck D., Dahme E.;
RT "Spongiform central nervous system myelinopathy in African dwarf
RT goats.";
RL J. Comp. Pathol. 113:357-372(1995).
CC -|- FUNCTION: The function of PrP is not known. PrP is encoded in the

```



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CC CC host genome and is expressed both in normal and infected cells.
CC CC "Toda".
CC CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC CC -!- DISEASE: Polymorphism at position 171 may be related to the
CC CC alleles of scrapie incubation-control (SIC) gene in this species.
CC CC -!- DISEASE: Found in high quantity in the brain of humans and animals
CC CC infected with degenerative neurological diseases such as kuru,
CC CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
CC CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC CC transmissible mink encephalopathy (TME), etc.
CC CC -!- SIMILARITY: Belongs to the prion family.
CC CC -----
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CC CC or send an email to license@isb-sib.ch).
CC CC -----
CC CC EMBL; X74758; CAA52774.1; -.
CC CC EMBL; X91999; CAA63050.1; -.
CC CC EMBL; S82626; AAD14409.1; -.
CC CC PIR; S37149; S37149.
CC CC HSSP; P23907; IG04.
CC CC InterPro: IPR000817; Prion.
CC CC Pfam; PF00377; Prion; 1.
CC CC Pfam; PF03991; Prion octapep; 5.
CC CC PRINTS; PR00341; PRION.
CC CC PROSITE; PS00291; PRION 1; 1.
CC CC PROSITE; PS00706; PRION 2; 1.
CC CC Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Polymorphism; Prion;
CC CC Repeat; Signal.
CC CC SIGNAL; 1 24 By similarity.
CC CC CHAIN; 25 233 Major prion protein.
CC CC PROPEP; 234 256 Removed in mature form (Potential).
CC CC LIPID; 233 233 GPI-anchor amidated alanine (Potential).
CC CC CARBOHYD; 184 184 N-linked (GlcNAc...) (Potential).
CC CC CARBOHYD; 200 200 N-linked (GlcNAc...) (Potential).
CC CC DISULFID; 182 217 By similarity.
CC CC DOMAIN; 54 95 5 X 8 AA tandem repeats of P-H-G-G-W-G-
CC CC REPEAT; 54 62 1.
CC CC REPEAT; 63 70 2.
CC CC REPEAT; 71 78 3.
CC CC REPEAT; 79 86 4.
CC CC REPEAT; 87 95 5.
CC CC VARIANT; 142 142 I -> M (appears to be associated with
CC CC differing disease incubation periods in
CC CC goats experimentally infected with
CC CC isolates of bovine spongiform
CC CC encephalopathy or sheep scrapie).
CC CC SEQUENCE; 256 AA; 27897 MW; BDA5795F6FD99746 CRC64;
CC CC -----
CC CC Query Match 96.7%; Score 234; DB 1; Length 256;
CC CC Best Local Similarity 95.7%; Pred. No. 3e-21; Mismatches 1; Indels 0; Gaps 0;
CC CC Matches 44; Conservative 1;
CC CC -----
CC CC Qy 1 DQYSSQNNFVHDCVNITVKQHTTTTGTGKGFNFTETDIKIMERVVEQ 46
CC CC |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
CC CC 170 DQYSSQNNFVHDCVNITVKQHTTTTGTGKGFNFTETDIKIMERVVEQ 215
CC CC -----
CC CC RESULT 11
CC CC PRIO OVICA
CC CC ID PRIO OVICA STANDARD; PRT; 256 AA.
CC CC AC Q7JH3;
CC CC DT 25-OCT-2004 (Rel. 45, Created)
CC CC DT 25-OCT-2004 (Rel. 45, Last sequence update)
CC CC DT 25-OCT-2004 (Rel. 45, Last annotation update)
CC CC DE Major prion protein precursor (PrP).
CC CC GN Name=PRNP;
CC CC OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
CC CC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
CC CC Caprinae; Ovis.
CC CC NCBI_TaxID=37176;
CC CC [1]

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OS Ovis canadensis (Bighorn sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Ovis.
OX NCBI_TaxID=37176;
RN [1]
RN SEQUENCE FROM N.A.
RC TISSUE=Brain;
RA O'Rourke K.I., Spraker T.R., Wild M.A., Miller M.W.;
RT "PrP gene sequence for big horn sheep (Ovis canadensis).";
RL Submitted (JUL-1999) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells (By
CC similarity).
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "ronds" (By similarity).
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By
CC similarity).
CC -!- SIMILARITY: Belongs to the prion family.
CC -----
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CC CC or send an email to license@isb-sib.ch).
CC CC -----
CC CC EMBL; AF166334; AAD48030.1; -.
CC CC PROSITE; PS00291; PRION 1; 1.
CC CC PROSITE; PS00706; PRION 2; 1.
CC CC Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
CC CC Signal.
CC CC SIGNAL; 1 24 By similarity.
CC CC CHAIN; 25 233 Major prion protein.
CC CC PROPEP; 234 256 Removed in mature form (Potential).
CC CC LIPID; 233 233 GPI-anchor amidated alanine (Potential).
CC CC CARBOHYD; 184 184 N-linked (GlcNAc...) (Probable).
CC CC CARBOHYD; 200 200 N-linked (GlcNAc...) (Probable).
CC CC DISULFID; 182 217 By similarity.
CC CC DOMAIN; 54 95 5 X 8 AA tandem repeats of P-H-G-G-W-G-
CC CC REPEAT; 54 62 1.
CC CC REPEAT; 63 70 2.
CC CC REPEAT; 71 78 3.
CC CC REPEAT; 79 86 4.
CC CC REPEAT; 87 95 5.
CC CC SEQUENCE; 256 AA; 27887 MW; BFC8E95F6FD99746 CRC64;
CC CC -----
CC CC Query Match 96.7%; Score 234; DB 1; Length 256;
CC CC Best Local Similarity 95.7%; Pred. No. 3e-21; Mismatches 1; Indels 0; Gaps 0;
CC CC Matches 44; Conservative 1;
CC CC -----
CC CC Qy 1 DQYSSQNNFVHDCVNITVKQHTTTTGTGKGFNFTETDIKIMERVVEQ 46
CC CC |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
CC CC 170 DQYSSQNNFVHDCVNITVKQHTTTTGTGKGFNFTETDIKIMERVVEQ 215
CC CC -----
CC CC RESULT 12
CC CC PRIO OVIMO
CC CC ID PRIO OVIMO STANDARD; PRT; 256 AA.
CC CC AC Q7JY2;
CC CC DT 25-OCT-2004 (Rel. 45, Created)
CC CC DT 25-OCT-2004 (Rel. 45, Last sequence update)
CC CC DT 25-OCT-2004 (Rel. 45, Last annotation update)
CC CC DE Major prion protein precursor (PrP).
CC CC GN Name=PRNP;
CC CC OS Ovibos moschatus (Muskox).
CC CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
CC CC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
CC CC Caprinae; Ovis.
CC CC NCBI_TaxID=37176;
CC CC [1]

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RP SEQUENCE FROM N.A.
RX MEDLINE=99303687; PubMed=10373359; DOI=10.1006/jmbi.1999.2831;
RA Wopfler F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Schatzl H.M.;
RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
of flexible regions of the prion protein.";
RL J. Mol. Biol. 289:1163-1178(1999).
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells (By
CC similarity).
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "rods" (By similarity).
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By
CC similarity).
CC -!- SIMILARITY: Belongs to the prion family.
CC -----
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CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL; AF117320; AAD19991.1; -.
CC InterPro; IPR000817; Prion.
CC Pfam; PF00377; Prion; 1.
CC Pfam; PF03991; Prion_octapep; 5.
CC PRINTS; PR00341; PRION.
CC SMART; SM00157; PrP; 1.
CC PROSITE; PS00291; PRION 1; 1.
CC PROSITE; PS00706; PRION 2; 1.
CC Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
CC Signal.
CC CHAIN 1 24 By similarity.
CC PROPEP 25 233 Major prion protein.
CC LIPID 234 256 Removed in mature form (Potential).
CC CARBOHYD 184 184 GPI-anchor amidated alanine (Potential).
CC CARBOHYD 200 200 N-linked (GlcNAc...) (Probable).
CC DISULFID 182 217 N-linked (GlcNAc...) (Probable).
CC DOMAIN 54 95 By similarity.
CC REPEAT 54 62 5 X 8 AA tandem repeats of P-H-G-G-W-G-
CC REPEAT 63 70 Q.
CC REPEAT 71 78 1.
CC REPEAT 79 86 2.
CC REPEAT 87 95 3.
CC REPEAT 87 95 4.
CC REPEAT 87 95 5.
CC SEQUENCE 256 AA; 27887 MW; BFC8E95F6FD99746 CRC64;

Query Match 96.7%; Score 234; DB 1; Length 256;
Best Local Similarity 95.7%; Pred. No. 3e-21;
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DQYSSQNNFVHDCVNIIVKQHTTTTNGENFTETDIKIMERVVEQ 46
DQYSSQNNFVHDCVNIIVKQHTTTTNGENFTETDIKIMERVVEQ 215
DQYSSQNNFVHDCVNIIVKQHTTTTNGENFTETDIKIMERVVEQ 215

Db 170 DQYSSQNNFVHDCVNIIVKQHTTTTNGENFTETDIKIMERVVEQ 215

RESULT 13
PRIO_OVIMU STANDARD; PRT; 256 AA.
AC Q7JK02;
DT 25-OCT-2004 (Rel. 45, Created)
DT 25-OCT-2004 (Rel. 45, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Major prion protein precursor (PrP).
GN Name=PRNP;
OS Ovis orientalis musimon (Mouflon).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Ovis.
OC NCB1_TaxID=9938;

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RN SEQUENCE FROM N.A.
RX PubMed=11805443; DOI=10.1159/000050072;
RA Seo S.W., Hara K., Kubosaki A., Nasu Y., Nishimura T., Saeki K.,
RA Matsumoto Y., Endo H., Onodera T.;
RT "Comparative analysis of the prion protein open reading frame
nucleotide sequences of two wild ruminants, the mouflon and golden
takin.";
RL Intervirology 44:359-363(2001).
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells (By
CC similarity).
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "rods" (By similarity).
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By
CC similarity).
CC -!- SIMILARITY: Belongs to the prion family.
CC -----
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC or send an email to license@isb-sib.ch).
CC -----
CC EMBL; AB060288; BAB69955.1; -.
CC EMBL; AB060289; BAB69956.1; -.
CC PROSITE; PS00291; PRION 1; 1.
CC PROSITE; PS00706; PRION 2; 1.
CC Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
CC Signal.
CC CHAIN 1 24 By similarity.
CC PROPEP 25 233 Major prion protein.
CC LIPID 234 256 Removed in mature form (Potential).
CC CARBOHYD 184 184 GPI-anchor amidated alanine (Potential).
CC CARBOHYD 200 200 N-linked (GlcNAc...) (Probable).
CC DISULFID 182 217 N-linked (GlcNAc...) (Probable).
CC DOMAIN 54 95 By similarity.
CC REPEAT 54 62 5 X 8 AA tandem repeats of P-H-G-G-W-G-
CC REPEAT 63 70 Q.
CC REPEAT 71 78 1.
CC REPEAT 79 86 2.
CC REPEAT 87 95 3.
CC REPEAT 87 95 4.
CC REPEAT 87 95 5.
CC SEQUENCE 256 AA; 27887 MW; BFC8E95F6FD99746 CRC64;

Query Match 96.7%; Score 234; DB 1; Length 256;
Best Local Similarity 95.7%; Pred. No. 3e-21;
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DQYSSQNNFVHDCVNIIVKQHTTTTNGENFTETDIKIMERVVEQ 46
DQYSSQNNFVHDCVNIIVKQHTTTTNGENFTETDIKIMERVVEQ 215
DQYSSQNNFVHDCVNIIVKQHTTTTNGENFTETDIKIMERVVEQ 215

Db 170 DQYSSQNNFVHDCVNIIVKQHTTTTNGENFTETDIKIMERVVEQ 215

RESULT 14
O46648 PRELIMINARY; PRT; 256 AA.
AC O46648;
DT 01-JUN-1998 (TrEMBLrel. 06, Created)
DT 01-JUN-1998 (TrEMBLrel. 06, Last sequence update)
DT 25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE Prion protein variant 240S.
GN Name=PrP;
OS Capra hircus (Goat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Capra.
OC NCB1_TaxID=9925;
RN [1]
RP SEQUENCE FROM N.A.

```

Search completed: July 26, 2005, 11:59:32  
Job time : 82 secs

Vaccari G., Morelli L., Antonucci G., Agrimi U.;  
Submitted (FEB-2002) to the EMBL/GenBank/DBJ databases.

[2]  
SEQUENCE FROM N.A.  
TISSUP=PBL;  
MEDLINE=9303687; PubMed=10373359; DOI=10.1006/jmbi.1999.2831;  
Wopner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,  
Schwarz T.F., Werner T., Schatzl H.M.;  
"Analysis of 27 mammalian and 9 avian PrPs reveals high conservation  
of flexible regions of the prion protein.";  
J. Mol. Biol. 289:1163-1178(1999).  
-1- SIMILARITY: Belongs to the prion family.  
EMBL; AF486136; AAL93183.1; -  
EMBL; AF117316; AAD19987.1; -  
PIR; A54281; A54281.  
DR HSP; P23907; IG04.  
DR InterPro; IPR000817; Prion.  
DR Pfam; PF00377; Prion; 1.  
DR Pfam; PF03991; Prion octapep; 5.  
DR PRINTS; PR00341; PRION.  
DR PROSITE; PS00291; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
SQ SEQUENCE 256 AA; 27887 MW; BFC8B95F6FD99746 CRC64;

Query Match 96.7%; Score 234; DB 2; Length 256;  
Best Local Similarity 95.7%; Ered. No. 3e-21;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DQYSSQNNFVHDCVNITVKQHTTTTTTKGENFTETDIKIMERVVEQ 46  
|||||  
DB 170 DQYSSQNNFVHDCVNITVKQHTTTTTTKGENFTETDIKIMERVVEQ 215

RESULT 15  
Q8SPV4 PRELIMINARY; PRT; 256 AA.  
ID Q8SPV4  
AC Q8SPV4  
DT 01-JUN-2002 (TrEMBLrel. 21, Created)  
DT 01-JUN-2002 (TrEMBLrel. 21, Last sequence update)  
DT 01-JUN-2002 (TrEMBLrel. 24, Last annotation update)  
DE Prion protein variant 110P.  
GN Name=Prp;  
OS Capra hircus (Goat).  
OC Eukaryota; Metazoa; Chordata; Cranista; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
OC Caprinae; Capra.  
OC NCBI\_TaxID=9925;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Vaccari G., Morelli L., Antonucci G., Agrimi U.;  
RA Submitted (FEB-2002) to the EMBL/GenBank/DBJ databases.  
CC -1- SIMILARITY: Belongs to the prion family.  
DR EMBL; AF486138; AAL93185.1; -  
DR HSP; P23907; IG04.  
DR InterPro; IPR000817; Prion.  
DR Pfam; PF00377; Prion; 1.  
DR Pfam; PF03991; Prion octapep; 5.  
DR PRINTS; PR00341; PRION.  
DR SMART; SM00157; PRP; 1.  
DR PROSITE; PS00291; PRION\_1; 1.  
DR PROSITE; PS00706; PRION\_2; 1.  
KW Prion.  
SQ SEQUENCE 256 AA; 27894 MW; B9E53E72ECB45746 CRC64;

Query Match 96.7%; Score 234; DB 2; Length 256;  
Best Local Similarity 95.7%; Ered. No. 3e-21;  
Matches 44; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 DQYSSQNNFVHDCVNITVKQHTTTTTTKGENFTETDIKIMERVVEQ 46  
|||||  
DB 170 DQYSSQNNFVHDCVNITVKQHTTTTTTKGENFTETDIKIMERVVEQ 215

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